ORDER NO. VRD9001M104

Service Manual

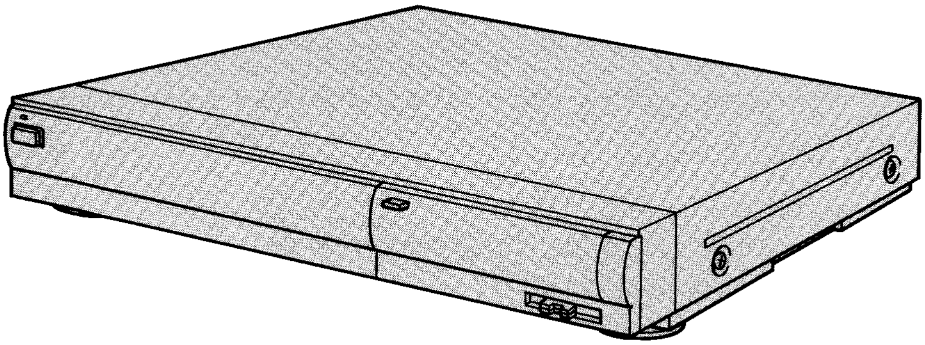
Video Cassette Recorder

Panasonic VHS PAL

Hi-Fi HQ

NV-F65B

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 240V 50/60Hz
	CONSUMPTION: 33 watts
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL
TV TUNER SYSTEM	UHF: CH21~CH69 (PAL I) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL I) 73±3dBμ, 75Ω terminated
VIDEO	HEADS: 4 rotary heads 1 pair for SP recording, playback and trick play (L-R heads) 1 pair for trick play (L′-R′ heads)
	INPUT: VIDEO IN Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated
VIDEO	OUTPUT: VIDEO OUT Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated
AUDIO	HEAD: 1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)
	INPUT: AUDIO IN Connector (Phono type) More than −10dBV (316mV), more than 50kΩ EURO AV Connector (21 pin) More than −10dBV (316mV), more than 10kΩ MICROPHONE JACK −70dBV

ITEM	SPECIFICATION
AUDIO	OUTPUT: AUDIO OUT Connector (Phono type) −8dBV (400mV), Less than 1kΩ EURO AV Connector (21 pin) −6dBV (500mV), Less than 1kΩ HEAD PHONE Jack −30dBV, 8Ω
	TRACK: 1 track (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	SP: 23.39mm/s LP: 11.695mm/s (AUDIO) Record/Playback Time: SP: 4 hours with 240min. type tape LP: 8 hours with 240min. type tape (AUDIO) FF/REW Time 2.5min. with 180min. type tape
DIMENSIONS	430(W)×86(H)×363(D)mm
WEIGHT	5.9kg
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red Remote Controller (Build in Digital Scanner type) 2 pc. Audio Cables 1 pc. Programme Sheet 1 pc. AC Mains Lead

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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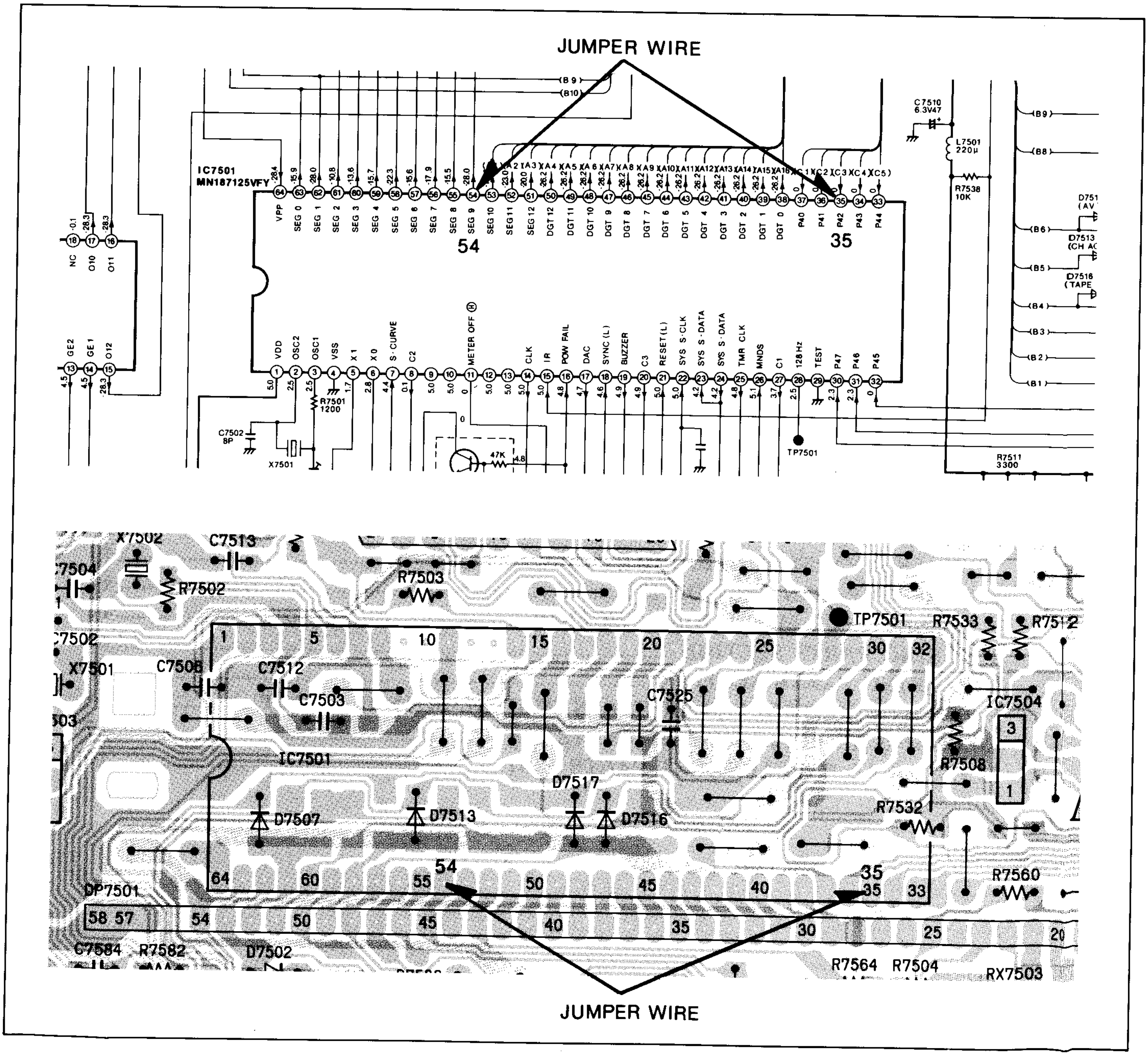
Technical Information

Please pay attention when you replace the memory IC IC7502 (MN12C261D) on Timer C.B.A.
Since the any data for new memory IC has been initialized at factory, the buzzer"on"data should be always set on the memory IC when your repairing.
The following steps must be performed after installing the new memory IC to Timer C.B.A.

Method (Contacting jumper wire on Timer C.B.A.)

1. Contact the lead wires between pin 54 and pin 35 on the Timer IC7501 twice by using jumper wire as shown below.
2. Confirm that "Beep-Beep" sound from the VTR warm you when setting any programmes.


JUMPER WIRE
IC7501
MN187125VFY
VPP
SEG 0
SEG 1
SEG 2
SEG 3
SEG 4
SEG 5
SEG 6
SEG 7
SEG 8
SEG 9
SEG 10
SEG 11
SEG 12
DGT 12
DGT 11
DGT 10
DGT 9
DGT 8
DGT 7
DGT 6
DGT 5
DGT 4
DGT 3
DGT 2
DGT 1
DGT 0
P40
P41
P42
P43
P44
54
35
VDD
OSC2
OSC1
VSS
X1
X0
S-CURVE
C2
METER OFF (H)
CLK
IR
POW FAIL
DAC
SYNC (L)
BUZZER
C3
RESET (L)
SYS S-CLK
SYS S-DATA
SYS S-DATA
TMR CLK
MINDS
C1
128 Hz
TEST
P47
P46
P45
NC
O10
O11
GE2
GE1
O12
C7502
8P
X7501
R7501
1200
47K
TP7501
C7510
6.3V47
L7501
220µ
R7538
10K
R7511
3300
(B9)
(B10)
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(B6)
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D7516
(TAPE
X7502
C7513
C7504
R7502
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C7525
IC7501
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D7513
D7517
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TP7501
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D7502
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R7504
RX7503
1
5
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25
30
32
64
60
55
54
50
45
40
35
33
58 57
JUMPER WIRE

SERVICE INFORMATION

1-1. HOW TO CHECK THE CRACKED CHIP PART

(1) Apply heat to the soldered portions of chip part using a soldering iron for about 2–3 seconds.
(2) If the chip part is faulty,it will be broken or cracked.

Caution: Do not leave soldering iron on the PCB too long as damage may occur to the PCB or the chip parts.

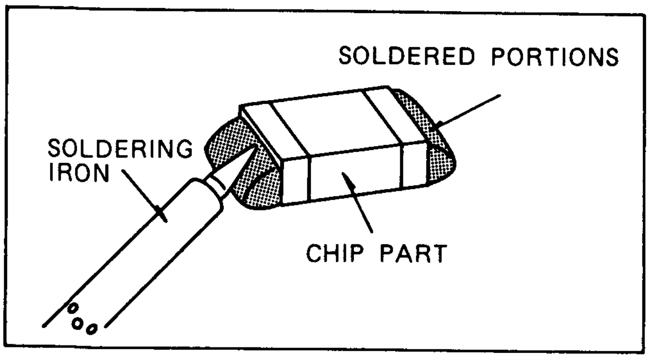

SOLDERED PORTIONS
SOLDERING IRON
CHIP PART

FIG. G1

Note: Regarding intermittent faults
The main causes of these faults are poor soldering and cracked chip parts.

1-2. HOW TO REPLACE THE CHIP PART

1) REMOVAL (RESISTOR, CAPACITOR, etc...)

(1) Presolder the one side of soldering portion for chip part and grasp the chip part by tweezers.

(2) Melt the presoldered portion. And then remove the chip part with a twisting motion while melting the soldering portion of another side quickly.

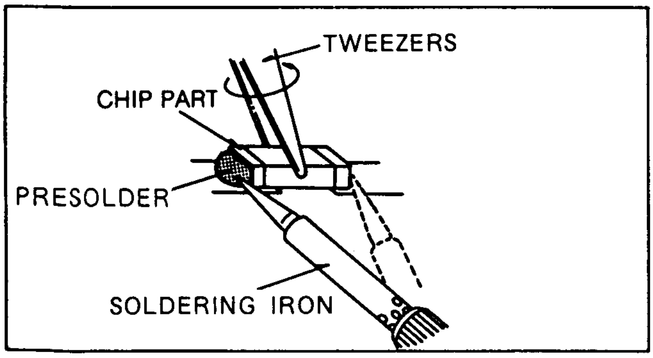

TWEEZERS
CHIP PART
PRESOLDER
SOLDERING IRON

FIG. G2

2) REMOVAL (transistor, diode, etc...)

(1) Grasp the chip part with tweezers and melt the solder of one lead.

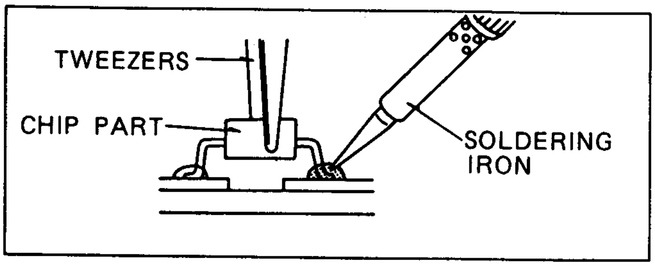

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G3

(2) Lift the side of that lead upward.

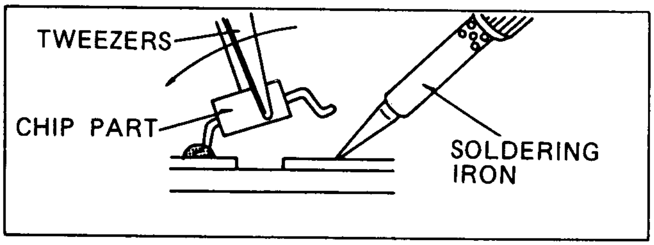

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G4

Caution: Do not lift the chip part too high as damage may occur to the PCB or the leads that are still soldered on the PCB.

(3) Simultaneously heat the solder of the two remaining leads and lift part to remove.

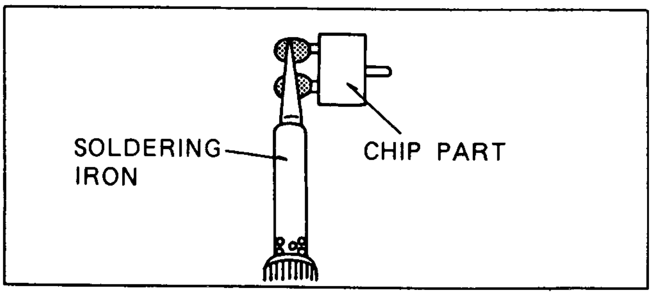

SOLDERING IRON
CHIP PART

FIG. G5

3) INSTALLATION

(1) Presolder the one side of contact point on the circuit board.

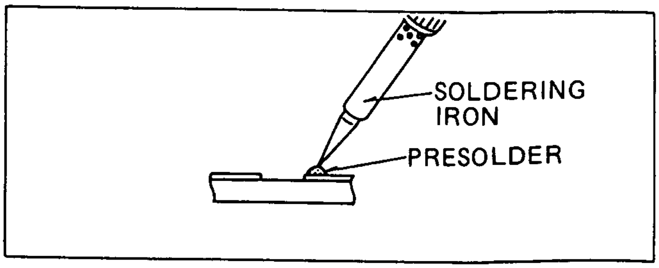

SOLDERING IRON
PRESOLDER

FIG. G6

(2) To install the chip part,hold in position using tweezers, apply heat to the pre-soldered portions using a fine tip soldering iron.
(3) Solder the other side of the chip part.
(4) Check your soldering.

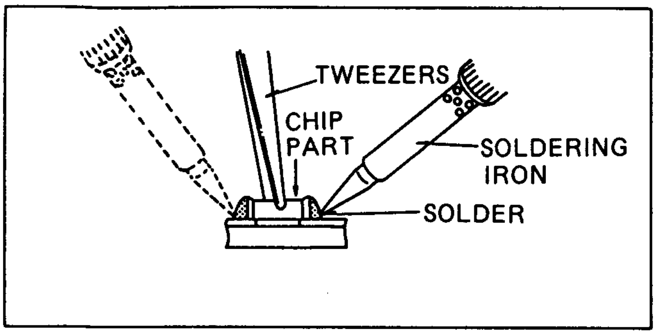

TWEEZERS
CHIP PART
SOLDERING IRON
SOLDER

FIG. G7

1-3. HOW TO REMOVE THE FLAT-IC

(WITH HOT-AIR FLAT-IC DESOLDERING MACHINE)

(FOR EXAMPLE)

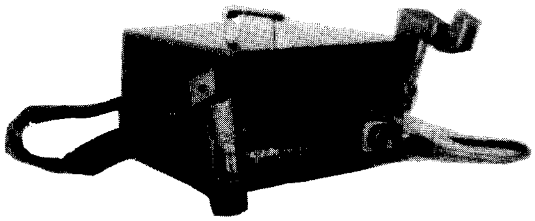


FIG. G8

(1) Prepare the HOT-AIR FLAT-IC DESOLDERING MACHINE. And then apply hot air to FLAT-IC about 5 ~ 8 seconds.

(2) Remove the FLAT-IC with tweezers while applying the hot air.

Caution: Do not supply the hot air to the chip parts around the Flat-IC for long time as as damage may occur to the chip parts around the Flat -IC.

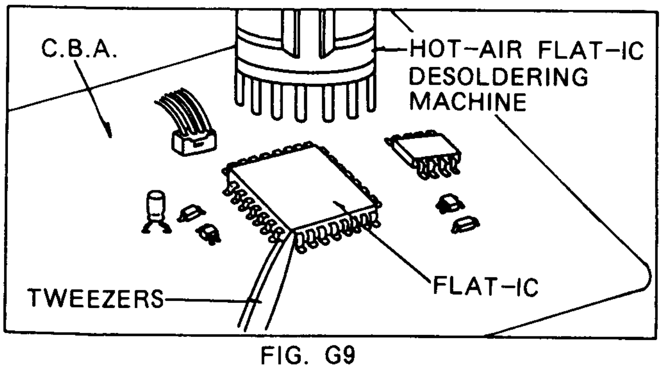

C.B.A.
HOT-AIR FLAT-IC DESOLDERING MACHINE
TWEEZERS
FLAT-IC

FIG. G9

(WITH SOLDERING IRON)

(1) Using solder braid remove the solder from all pins of the Flat-IC.
When you use the solder flux which is applied to all pins of the Flat-IC,you can remove it easily.

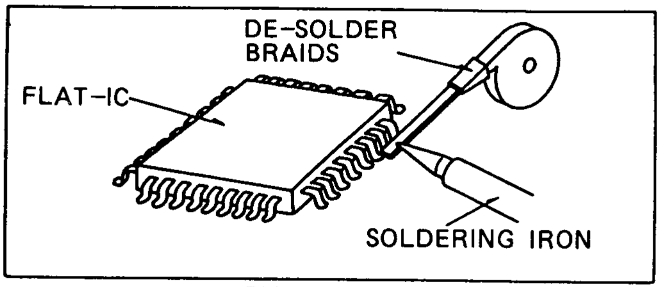

DE-SOLDER BRAIDS
FLAT-IC
SOLDERING IRON

FIG. G10

(2) Lift each lead of the Flat-IC upward one by one using a sharp pin or non solder wire(iron wire),while heating the pins using a fine tip soldering iron or a hot air blower.

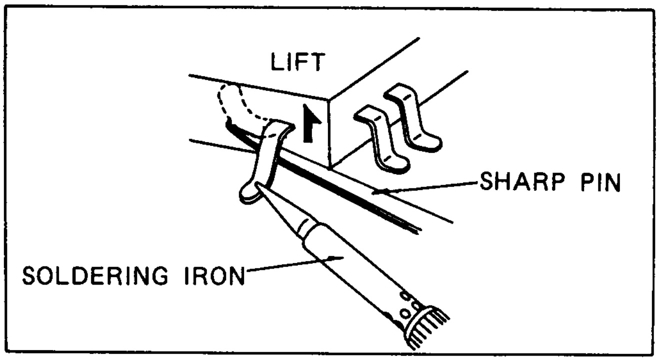

LIFT
SHARP PIN
SOLDERING IRON

FIG. G11

(WITH IRON WIRE)

(1) Affix the wire to workbench or solid mounting point as shown in FIG.G12.
(2) Pull up wire as the solder melts so as to lift the IC lead from the PCB contact pad,while heating the pins using a fine tip soldering iron or hot air blower.

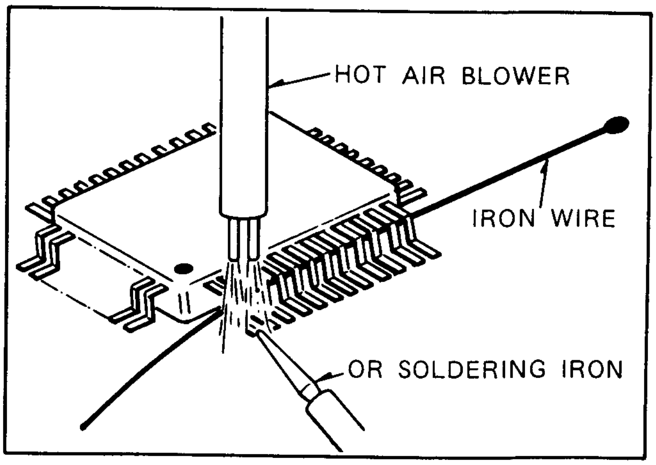

HOT AIR BLOWER
IRON WIRE
OR SOLDERING IRON

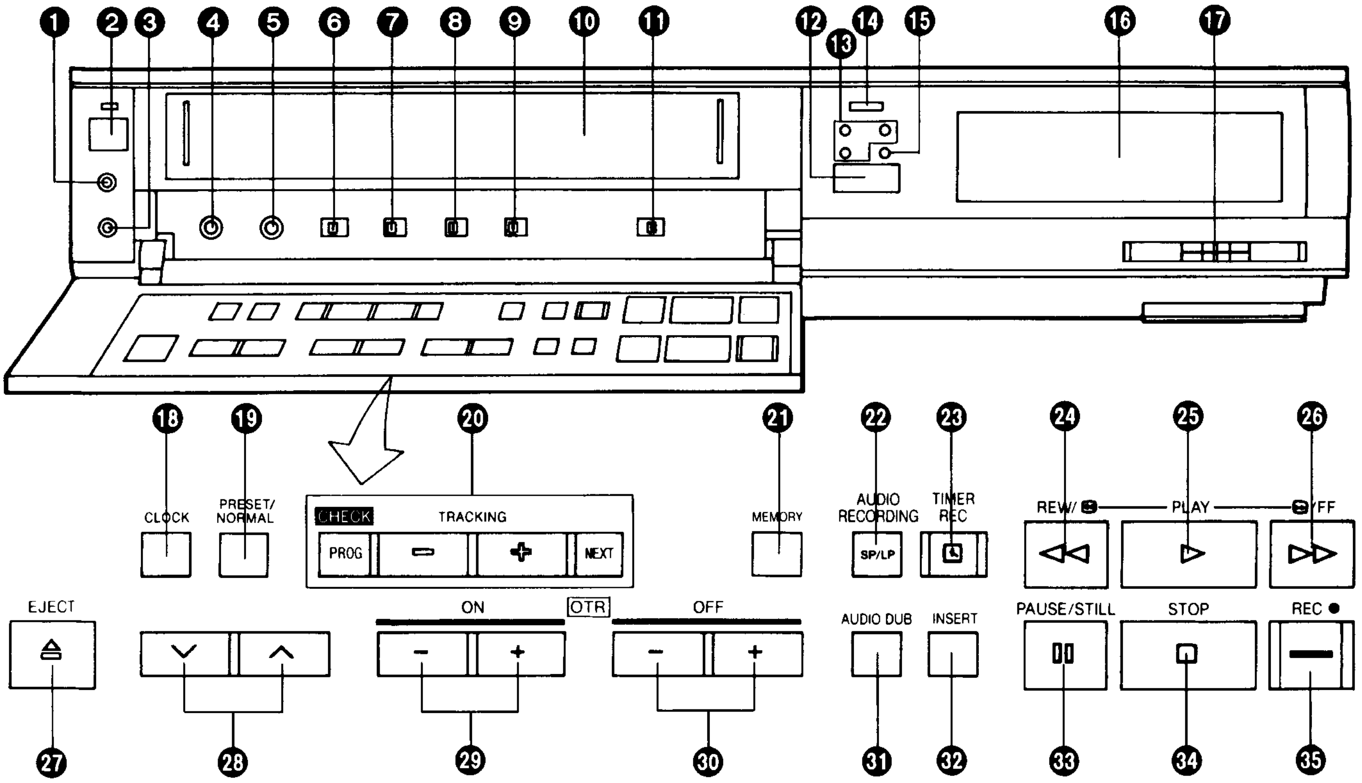
FIG.G12

Note: When using a soldering iron care must be taken to ensure that the Flat IC is not being held by glue before it is the PCB may be damaged if force is used.

SECTION 1
GENERAL DESCRIPTIONS

1-1. CONTROLS AND COMPONENTS

FRONT



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CLOCK
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CHECK
TRACKING
PROG
NEXT
MEMORY
AUDIO RECORDING
TIMER REC
SP/LP
REW/
PLAY
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AUDIO DUB
INSERT
PAUSE/STILL
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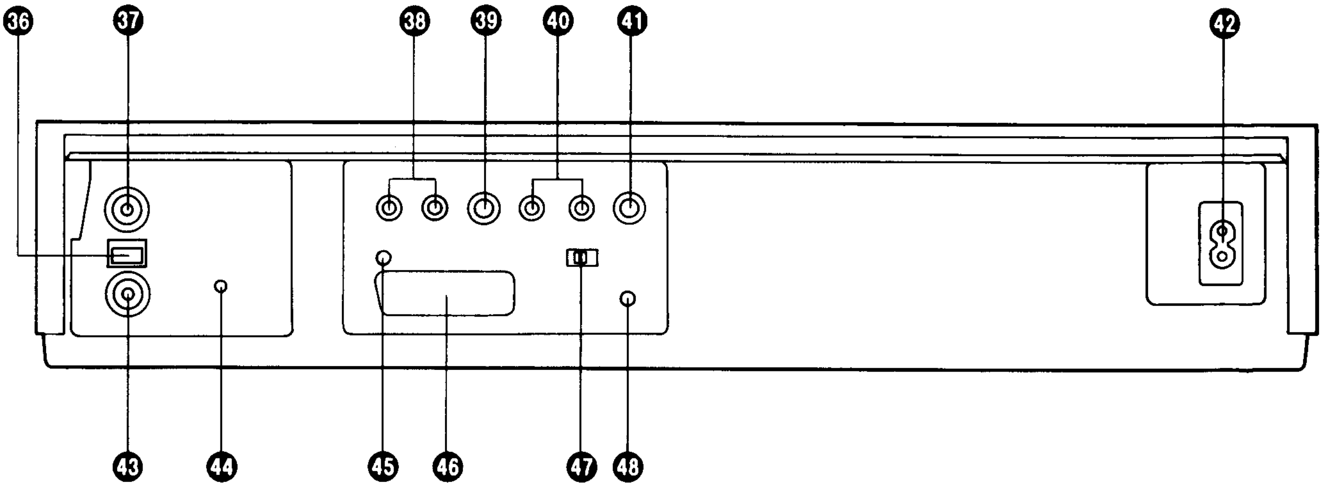
REAR



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① Microphone Input Socket

② VTR On/Off Switch with Indicator

③ Headphones Socket

④ Headphones Output Level Control

⑤ Picture Sharpness Control

⑥ Noise Filter/Edit Selector

⑦ MPX Filter Switch

⑧ Hi-Fi/Normal Mix Switch

⑨ Nicam/Mono Switch

⑩ Cassette Compartment

⑪ Input Signal Selector

⑫ Infra-red Remote Control Receiver

⑬ Audio Recording Mode Indicators

⑭ Control Panel Open Button

⑮ Digital Tracking Indicator

⑯ Multi-Function Display

⑰ Audio Rec Level Controls

⑱ Clock Button

⑲ Preset/Normal Button

⑳ Timer Controls

㉑ Memory Button

㉒ Tape Speed Button (Audio Recording)

㉓ Timer Record Button

㉔ Rewind ◀◀/Review ⏪ Button

㉕ Play Button (▶)

㉖ Fast Forward ▶▶/Cue ⏩ Button

㉗ Eject Button (⏏)

㉘ Channel Selection Up and Down Buttons

㉙ OTR On Buttons

㉚ OTR Off Buttons

㉛ Audio Dubbing Button

㉜ Insert Editing Button

㉝ Pause/Still Button (❚❚)

㉞ Stop Button (■)

㉟ Record Button (●)

㊱ RF Signal Level Switch

㊲ RF Output Socket

㊳ Audio Input Sockets

㊴ Video Input Socket

㊵ Audio Output Sockets

㊶ Video Output Socket

㊷ AC Mains Lead Socket

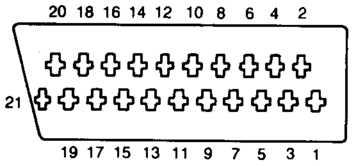
㊸ RF Input Socket

㊹ Video Playback Channel Selector

㊺ Synchro Edit Socket

㊻ AV Socket

Connections of the AV Socket

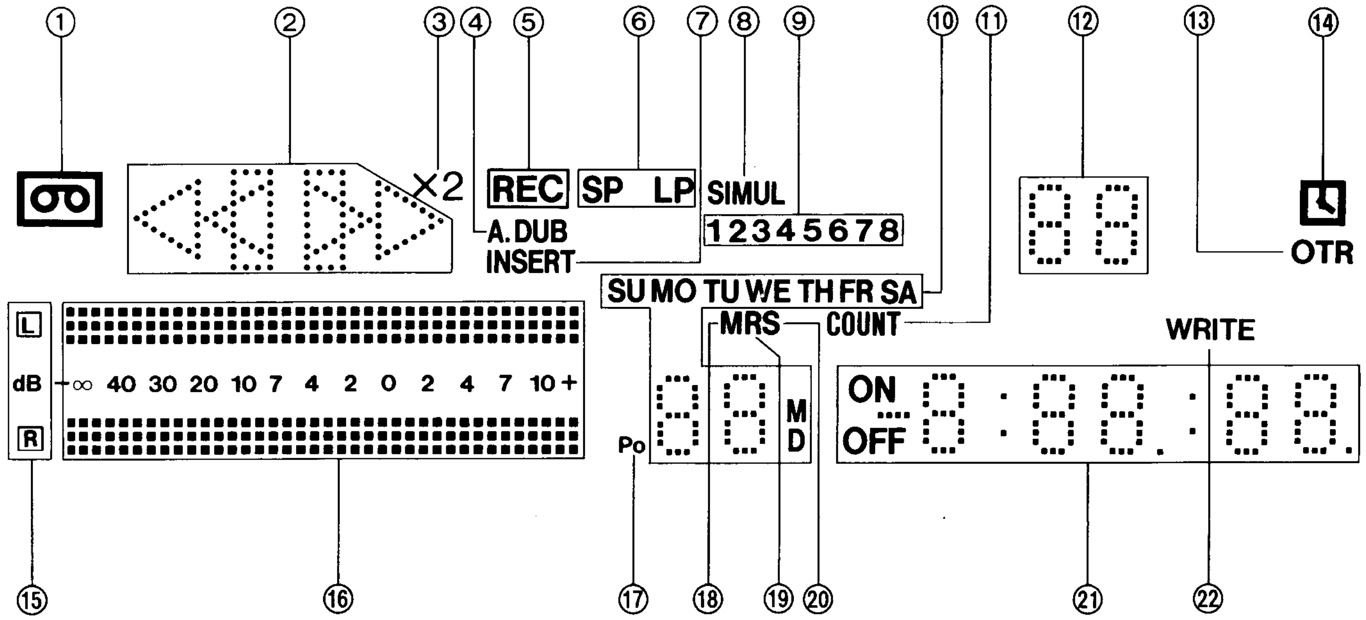


1	AUDIO OUTPUT CH2 (R)	11	No connection
2	AUDIO INPUT CH2 (R)	12	No connection
3	AUDIO OUTPUT CH1 (L)	13	No connection
4	AUDIO GND	14	No connection
5	No connection	15	No connection
6	AUDIO INPUT CH1 (L)	16	No connection
7	No connection	17	VIDEO GND
8	SWITCHING VOLTAGE	18	No connection
9	No connection	19	VIDEO OUTPUT
10	No connection	20	VIDEO INPUT
		21	GND

㊼ Test Signal Switch

㊽ Vertical Lock Control

Multi-Function Display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① Cassette-in Indicator

② Tape Running Display

③ Double Speed Indicator

④ Audio Dubbing Indicator

⑤ Recording Indicator

⑥ Tape Speed Indicator

⑦ Insert Editing Indicator

⑧ Simulcast Indicator

⑨ Timer Programme Number

⑩ Date Display

⑪ Counter Mode Indicator

⑫ Channel Display

⑬ OTR Indicator

⑭ Timer Recording Indicator

⑮ Audio Output Mode Indicators

⑯ Audio Level Meter

⑰ Position Indicator

⑱ Memory Indicator

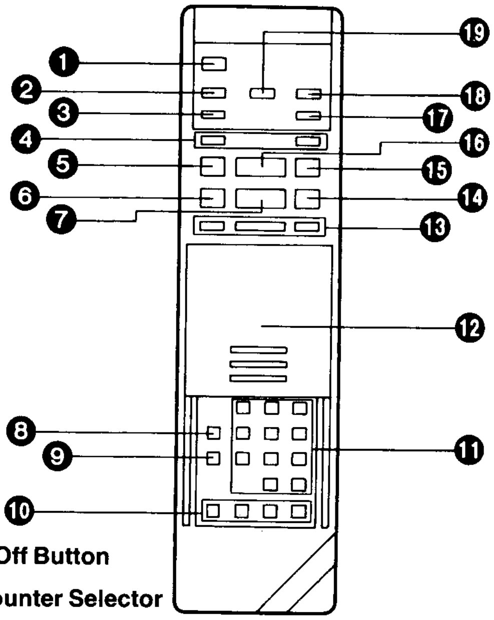
⑲ Repeat Indicator

⑳ Search Indicator

㉑ Clock/Counter Display

㉒ Write Indicator

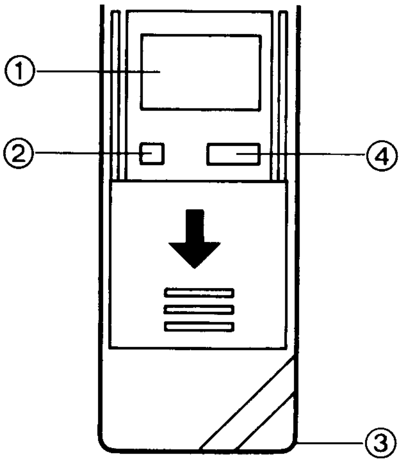
1-2. INFRA-RED REMOTE CONTROLLER



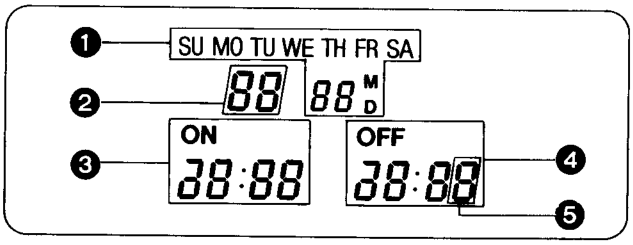
❶ **VTR On/Off Button**
❷ **Clock/Counter Selector**
❸ **Audio Output Selector**
❹ **Record Buttons (●)**
❺ **Pause/Still Button (❚❚)**
❻ **Rewind ◀◀/Review ⊟ Button**
❼ **Play Button (▶)**
❽ **Time Search Button**
❾ **Monitor Button**
❿ **Auto Play Buttons**
⓫ **Programme Position (Channel) Selector Buttons**
⓬ **Mode Selector Cover**
⓭ **Search Buttons**
⓮ **Fast Forward ▶▶/Cue ⊟ Button**
⓯ **Still Advance Button (II▶)**
⓰ **Stop Button (■)**
⓱ **Reverse Play Button**
⓲ **Memory/Repeat/Search Button**
⓳ **Reset/Index Button**

Use as Digital Scanner

Slide the Mode Selector Cover downward.



① **Bar Code Reader Display**



❶ Date Display
❷ Channel Display
❸ Start Time Display
❹ End Time Display
❺ Check Indicator

② **Digital Scanner On/Off Button**
③ **Bar Code Reading Section**
④ **Transmit Button**

SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY METHOD

2–1–1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

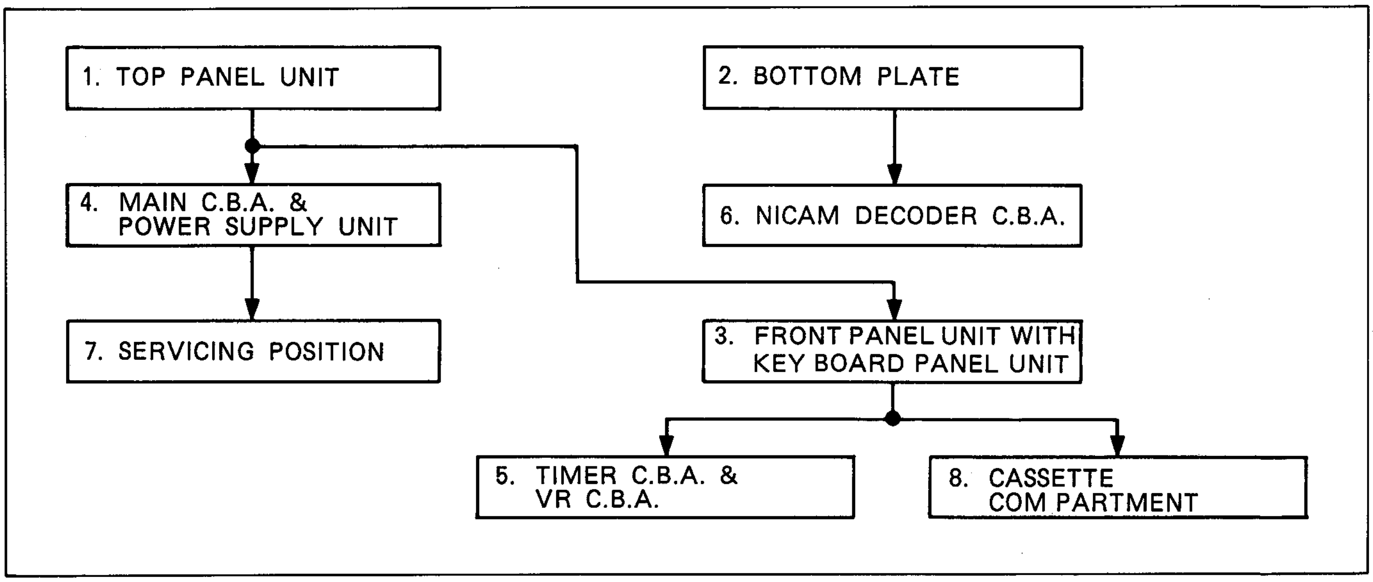

1. TOP PANEL UNIT
2. BOTTOM PLATE
4. MAIN C.B.A. & POWER SUPPLY UNIT
6. NICAM DECODER C.B.A.
7. SERVICING POSITION
3. FRONT PANEL UNIT WITH KEY BOARD PANEL UNIT
5. TIMER C.B.A. & VR C.B.A.
8. CASSETTE COM PARTMENT

Fig. D1

2–1–2. DETAIL OF DISASSEMBLE METHOD

1. REMOVAL OF THE TOP PANEL UNIT

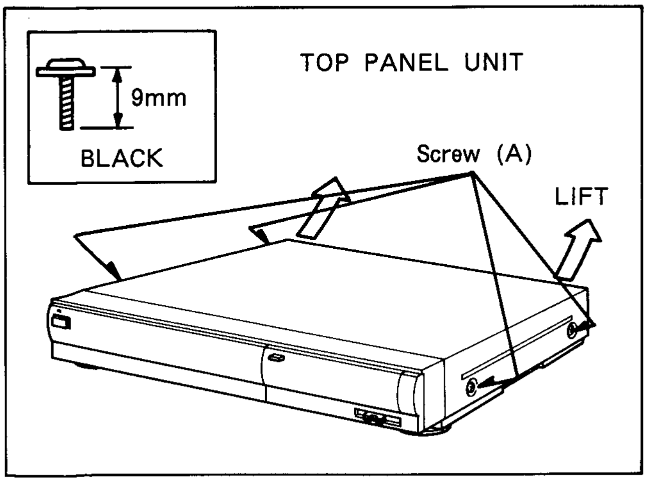

9mm
BLACK
TOP PANEL UNIT
Screw (A)
LIFT

Fig. D2

Remove...4 Screws (A)

2. REMOVAL OF THE BOTTOM PLATE

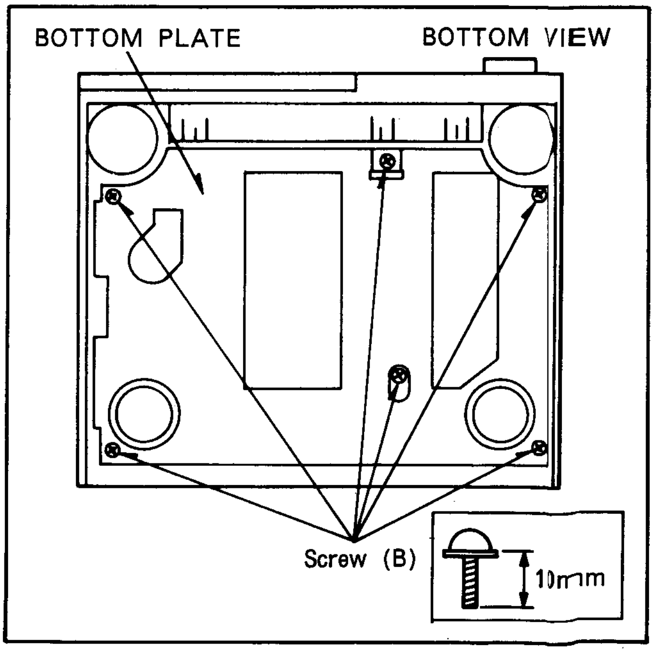

BOTTOM PLATE
BOTTOM VIEW
Screw (B)
10mm

Fig. D3

Remove...6 Screws (B)

3. REMOVAL OF THE FRONT PANEL UNIT WITH KEY BOARD PANEL UNIT

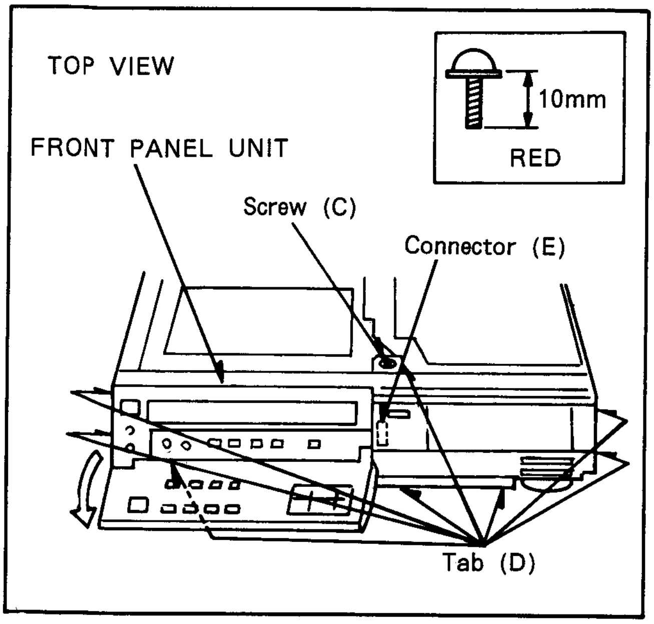

TOP VIEW
10mm
RED
FRONT PANEL UNIT
Screw (C)
Connector (E)
Tab (D)

Fig. D4

Remove...Screw (C)
Unlock...8 Tabs (D)
Disconnect...Connector (E)

4. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

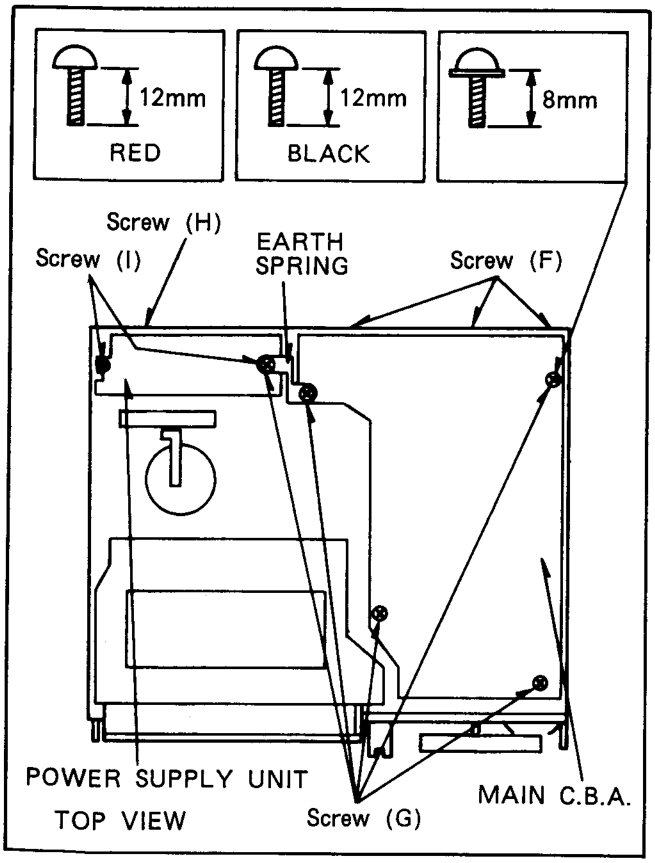

12mm
RED
12mm
BLACK
8mm
Screw (H)
Screw (I)
EARTH SPRING
Screw (F)
POWER SUPPLY UNIT
TOP VIEW
Screw (G)
MAIN C.B.A.

Fig. D5

REMOVAL OF THE MAIN C.B.A.

Remove... 3 Screws (F), 5 Screws (G) and EARTH SPRING

REMOVAL OF THE POWER SUPPLY UNIT

Remove...Screw (H), 2 Screws (I) and EARTH SPRING

5. REMOVAL OF THE VR C.B.A. and TIMER C.B.A.

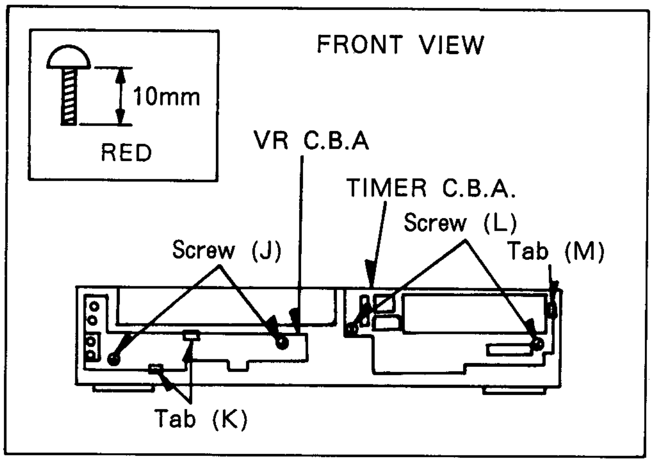

10mm
RED
FRONT VIEW
VR C.B.A
TIMER C.B.A.
Screw (L)
Tab (M)
Screw (J)
Tab (K)

Fig. D6

REMOVAL OF THE VR C.B.A.

Remove...2 Screws (J)
Unlock...2 Tabs (K)

REMOVAL OF THE TIMER C.B.A.

Remove...2 Screws (L)
Unlock...Tab (M)

6. REMOVAL OF THE NICAM DECODER C.B.A.

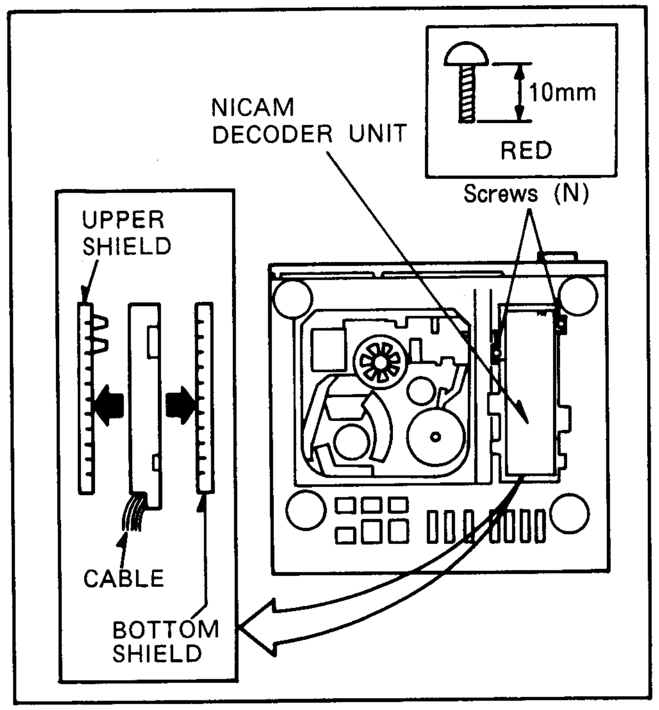

10mm
RED
NICAM
DECODER UNIT
Screws (N)
UPPER
SHIELD
CABLE
BOTTOM
SHIELD

Fig. D7

Remove ... 2 Screws (N) and SHIELD

7. SERVICING

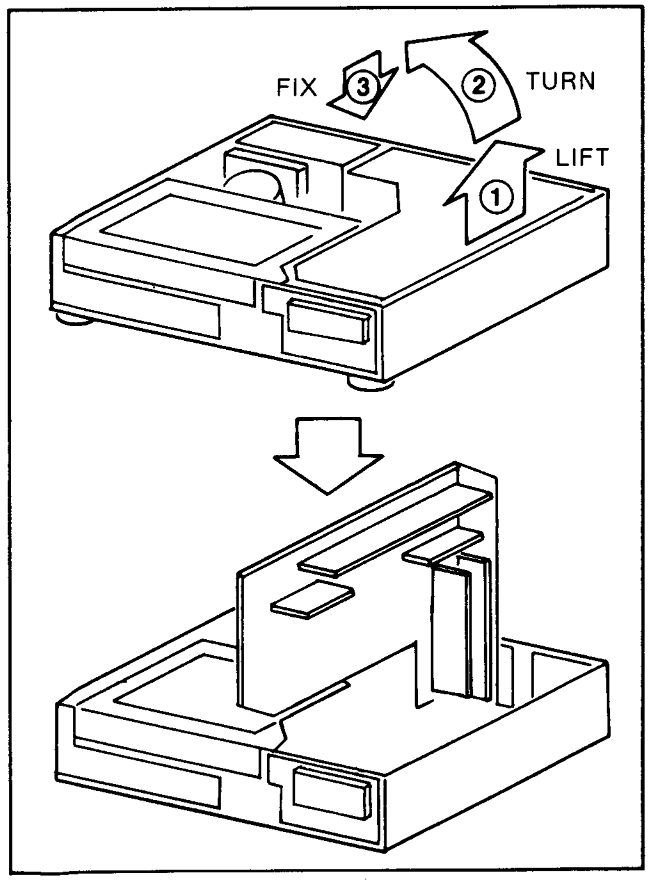

FIX ③
② TURN
① LIFT

Fig. D8

8. REMOVAL OF THE CASSETTE COMPARTMENT

Remove 2 screws (O) and slide the cassette holder until appearing 2 screws (P) by turning (clockwise) the capstan rotor unit (located in the bottom side) and then remove 2 screws (P). Remove the flexible wire from connector P150 mounted on Take–up photo Tr. C.B.A., then carefully pull out the cassette compartment.

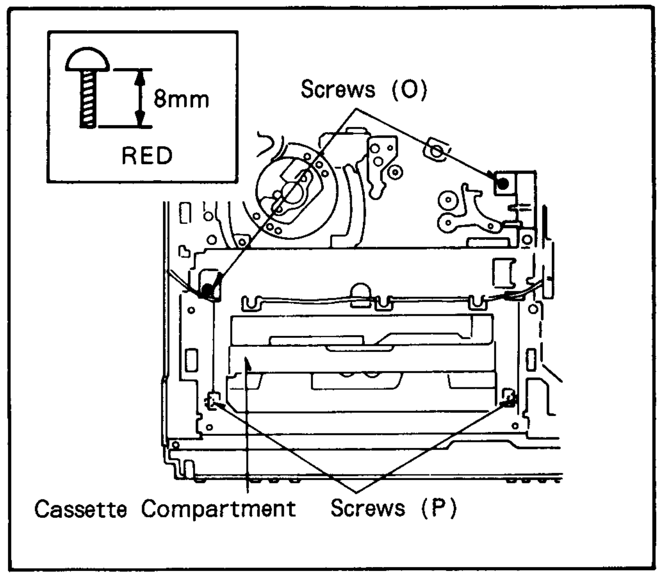

8mm
RED
Screws (O)
Cassette Compartment
Screws (P)

Fig. D9

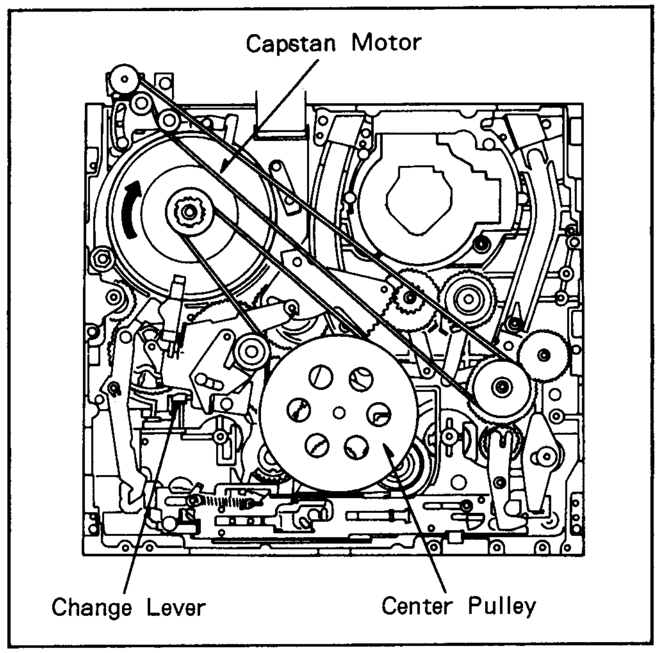

Capstan Motor
Change Lever
Center Pulley

Fig. D10

2–1–3.How to open the Remote Control Unit

1.Removal of the sensor cap.

Turn the sensor cap counterclockwise(90 degrees) and pull the sensor cap to remove as shown in Fig D11.

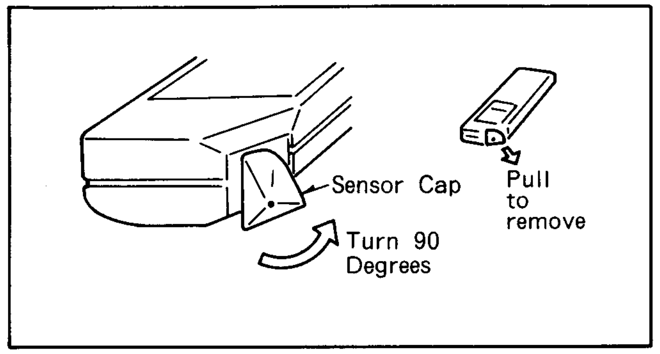

Sensor Cap
Pull
to
remove
Turn 90
Degrees

Fig.D11

2.Removal of the Battery Cover

Press the part of battery cover indicated by the arrow and lift off the cover.
Then take out batteries.

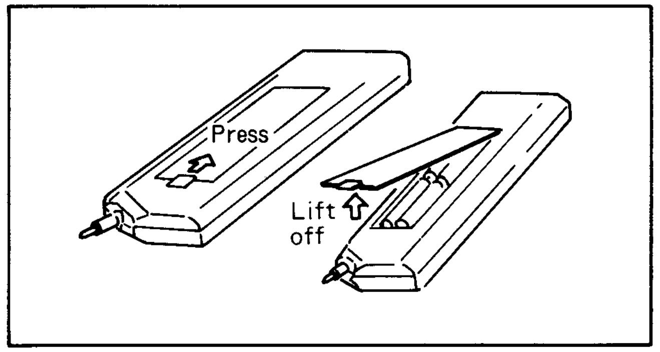

Press
Lift
off

Fig.D12

3.Removal of the bottom case.

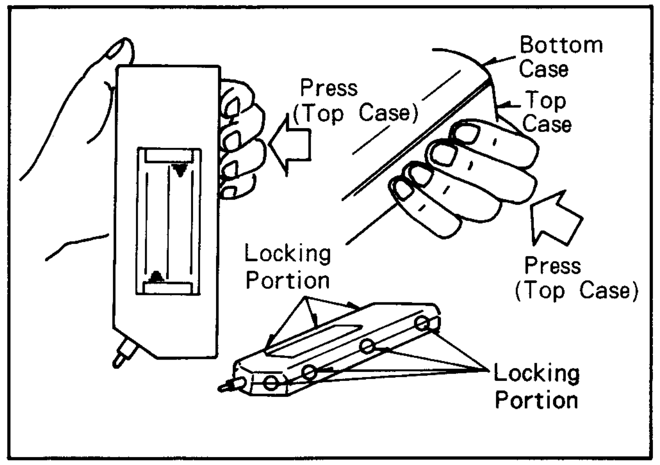

Bottom
Case
Top
Case
Press
(Top Case)
Locking
Portion
Press
(Top Case)
Locking
Portion

Fig.D13

Press the side of Top case with left hand as shown in Fig.D13 by big force so that the top case is bending.
Then insert your finger of right hand to gap between top case and bottom case while keep pressing by your left hand as shown in Fig.D14.

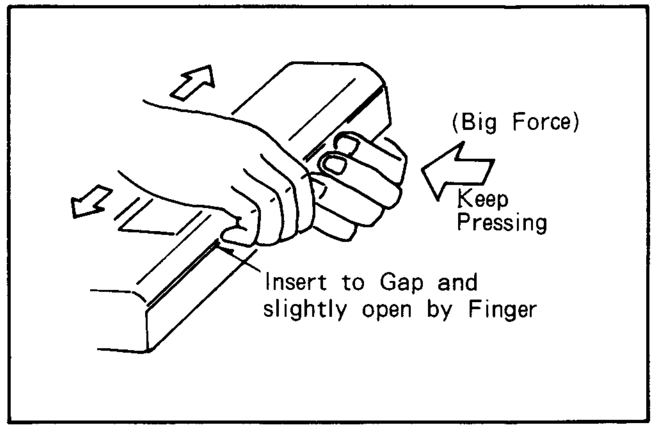

(Big Force)
Keep
Pressing
Insert to Gap and
slightly open by Finger

Fig.D14

First slightly open the bottom case by your inserted right hand and move your right hand to extend the open portion.
When unlock the 3 locking portion(refer to Fig.D13),the bottom case is removed easily.
If you can not open,please try opposite side with same way.

4.Removal of the sensor C.B.A.

Remove 2 screws as shown in Fig.D15.

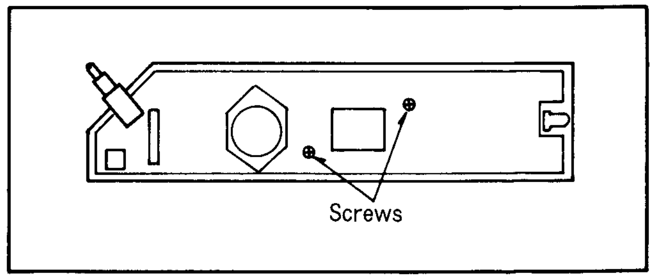


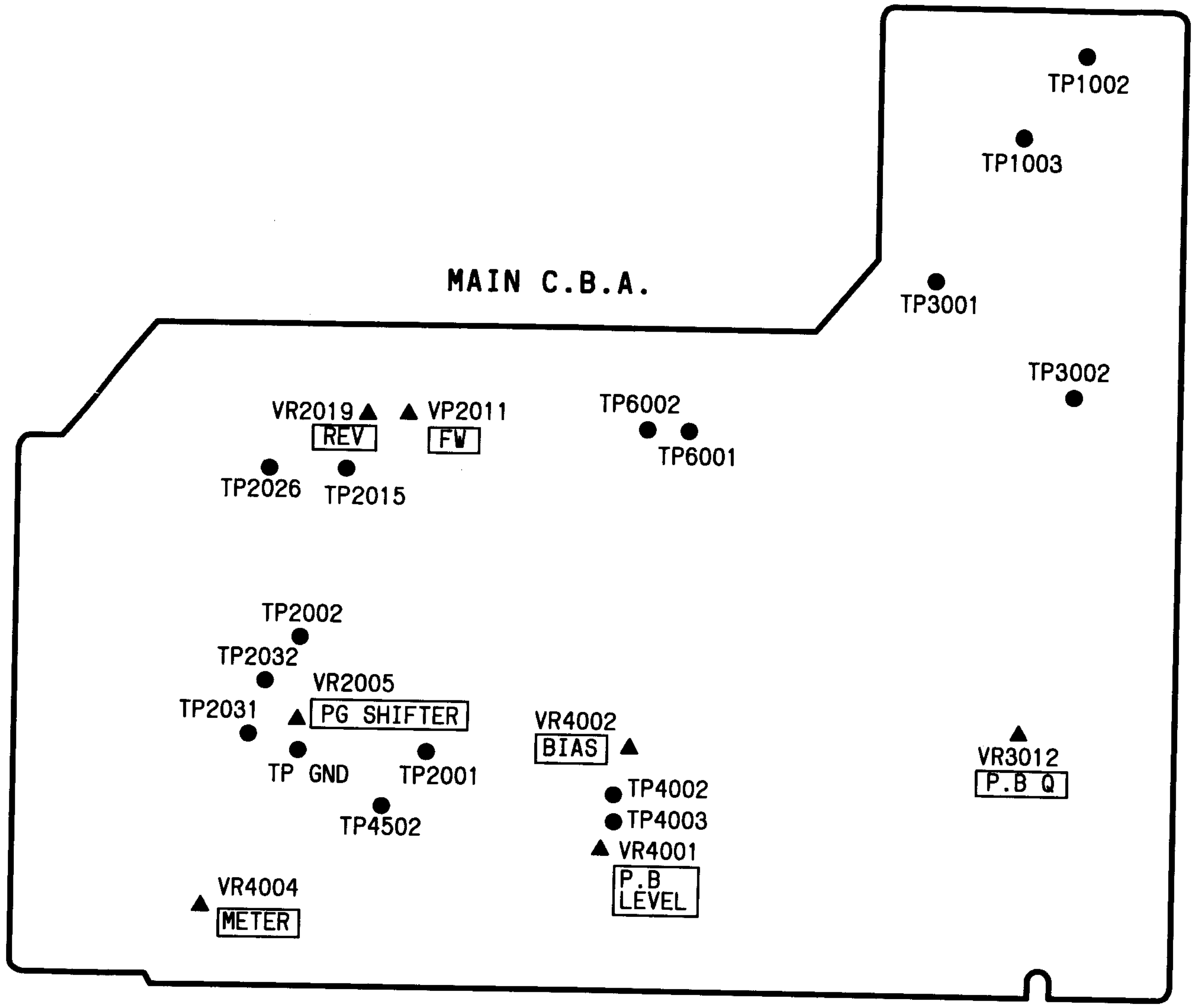
Fig.D15

2-2. MECHANICAL ADJUSTMENT PROCEDURES

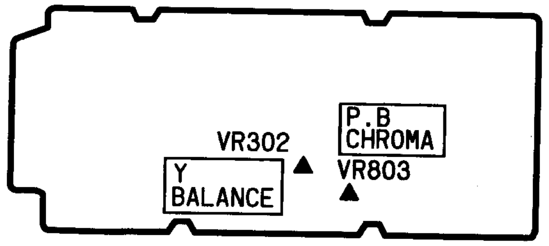
This Mechanical chassis is the same as G–II Mechanical chassis.
Therefore please refer to the service Manual "G–II/G–REV" (Order NO. VRD8901M101).

LOCATION OF TEST POINTS & CONTROLS

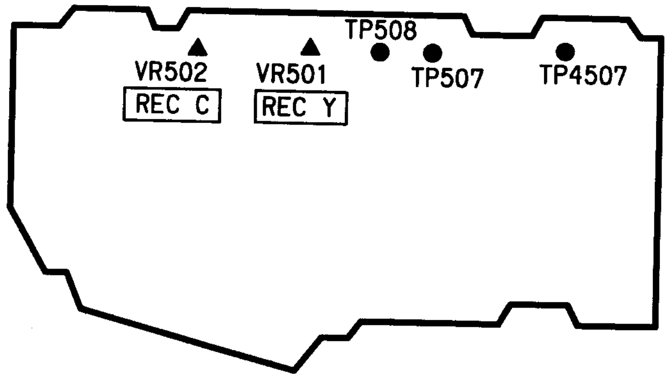
MAIN C.B.A.


TP1002
TP1003
TP3001
TP3002
VR2019 REV
VP2011 FW
TP6002
TP6001
TP2026
TP2015
TP2002
TP2032
VR2005 PG SHIFTER
TP2031
TP GND
TP2001
VR4002 BIAS
TP4002
TP4003
VR4001 P.B LEVEL
TP4502
VR3012 P.B Q
VR4004 METER

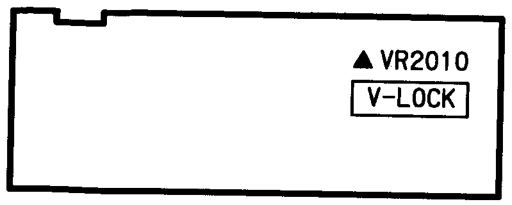
LUMINANCE & CHROMINANCE PACK C.B.A.


VR302
Y BALANCE
P.B CHROMA
VR803

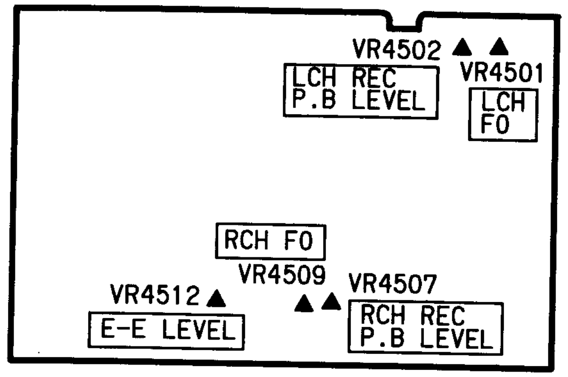
HEAD AMP C.B.A.


TP508
VR502 REC C
VR501 REC Y
TP507
TP4507

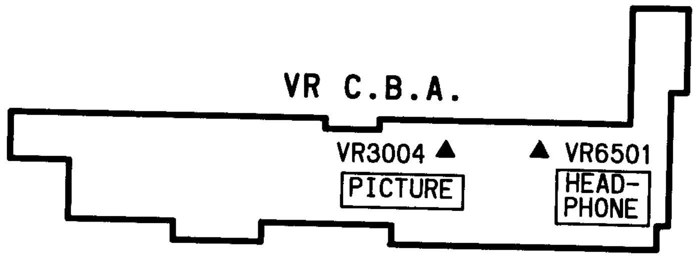
INPUT/OUTPUT PACK C.B.A.


VR2010 V-LOCK

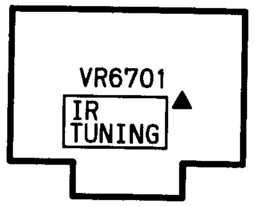
Hi-Fi AUDIO PACK C.B.A.


VR4502
VR4501
LCH REC P.B LEVEL
LCH FO
RCH FO
VR4509
VR4512
VR4507
E-E LEVEL
RCH REC P.B LEVEL

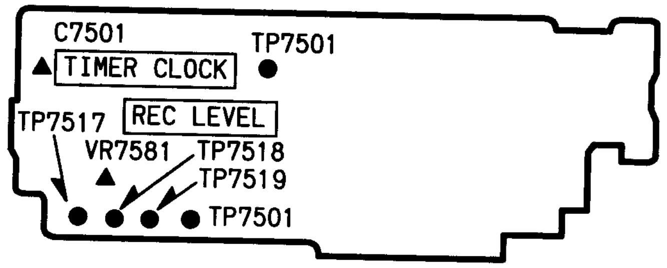
VR C.B.A.


VR3004 PICTURE
VR6501 HEAD-PHONE

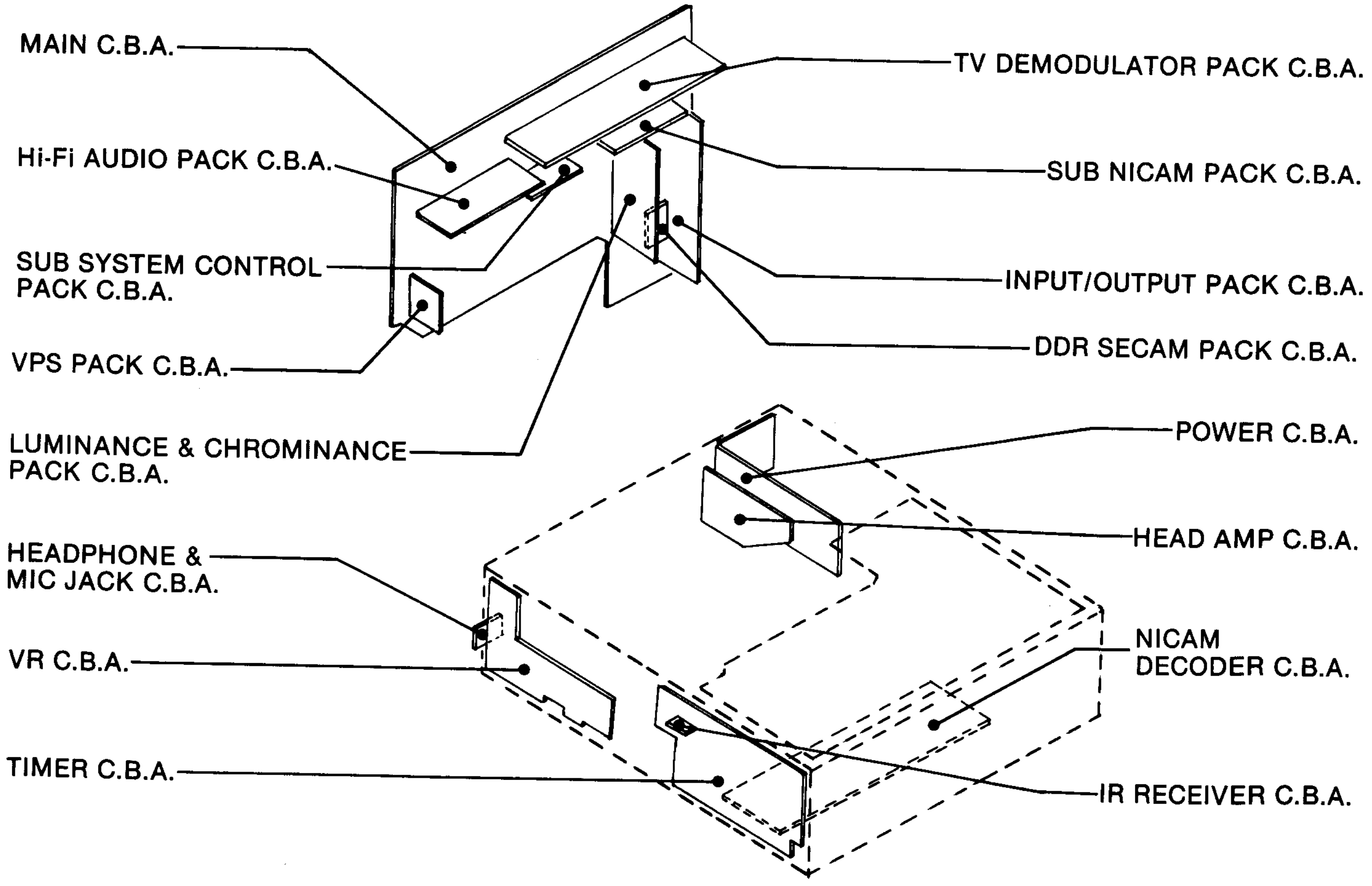
IR RECEIVER C.B.A.


VR6701
IR TUNING

TIMER C.B.A.


C7501
TIMER CLOCK
TP7501
TP7517
REC LEVEL
VR7581
TP7518
TP7519
TP7501

CIRCUIT BOARD LAYOUT


MAIN C.B.A.
Hi-Fi AUDIO PACK C.B.A.
SUB SYSTEM CONTROL PACK C.B.A.
VPS PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.
TV DEMODULATOR PACK C.B.A.
SUB NICAM PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
DDR SECAM PACK C.B.A.
POWER C.B.A.
HEAD AMP C.B.A.
NICAM DECODER C.B.A.
IR RECEIVER C.B.A.

2-3. ELECTRICAL ADJUSTMENT PROCEDURES

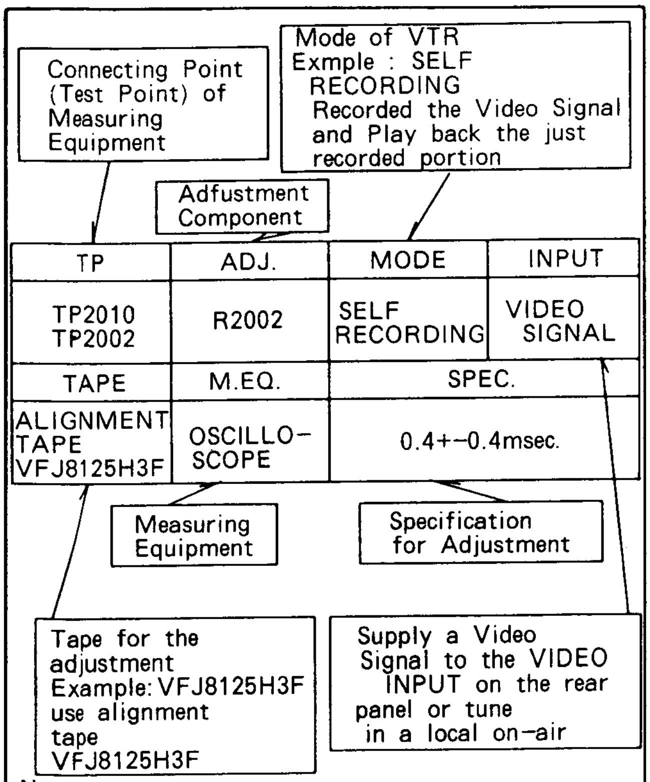
This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorder.

2-3-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) and DVM (Digital Volt Meter)
   Voltage Range: 0.001~50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005~50V/div.
   Frequency Range: DC~30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0~10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0~500KHz
5. Video Sweep Generator
   Frequency Range: 0~10MHz
6. Colour Monitor TV
7. Plastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator

2-3-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Exmple : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adfustment Component
TP
ADJ.
MODE
INPUT
TP2010
TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO-SCOPE
0.4+-0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment
Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

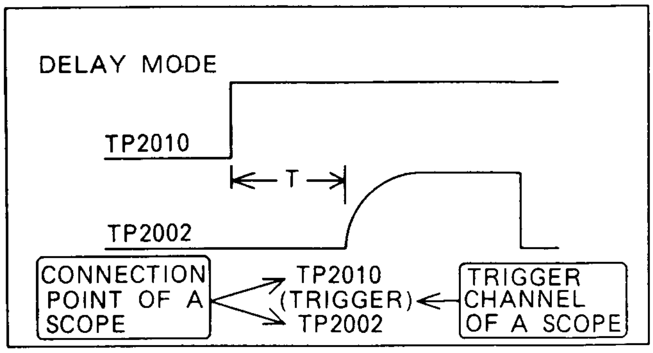

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

Note:
Before the electrical adjustment, set the VTR as following conditions except for especial instructions in each adjustment item.

1. Picture sharpness VR ... Centre FIX position
2. Tape Speed Selector ... SP position
3. Audio Rec Control VR ... Centre FIX position
4. MPX Filter Switch ... OFF position
5. Input Signal Selector ... AV position
6. Edit Switch ... OFF position

SERVO Section

2-3-3. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY BACK	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	7.0+-0.5 (H)	

1. Connect the Oscilloscope to TP2001 and TP3002.
2. Playback the VHS Alignment Tape (VFJ8125H3F).
3. Adjust VR2001 so that the phase difference becomes 7.0+-0.5 (H) as shown in Fig. E3.

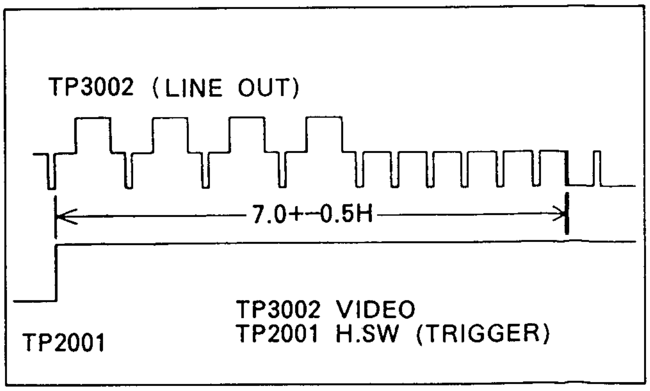

TP3002 (LINE OUT)
7.0+-0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

Fig. E3

2-3-4. ARTIFICIAL V-SYNC ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
MONITOR SCREEN	VR2010(SP)	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	MONITOR	NO V-DANCING	

1. Record the Video Signal in SP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
2. Adjust VR2010 so that the V-Dancing does not appear on the Monitor Screen.

2-3-5. SLOW TRACKING ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP2002 IC2001-2	VR2011(SP)	SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=20+-20(msec)	

Connect the Oscilloscope to TP2002 and IC2001-2.

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Speed Slow by Infra-red remote controller. (Press [SEARCH] button and then press [+] button 5 times)
2. Adjust VR2011 so that the phase difference becomes 20+-20 (msec) as shown in Fig. E4.

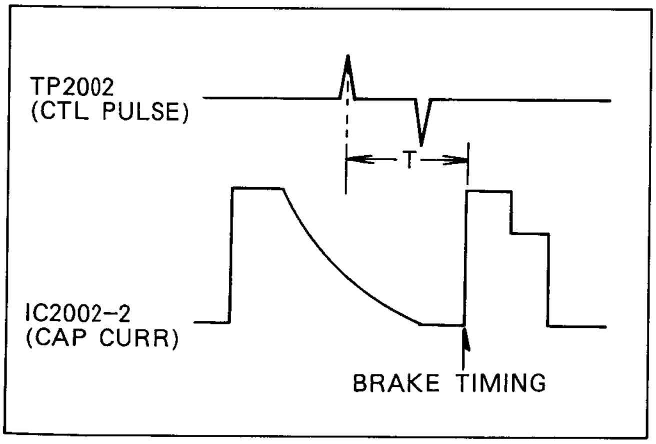


Fig. E4

2-3-6. REVERSE SLOW TRACKING ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP2002 IC2001-2	VR2019(SP)	SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=3+-2 (msec)	

Connect the Oscilloscope to TP2002 and IC2001-2

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Reverse Slow Mode by Infra-red remote controller. (Press [SEARCH] button and then press [-] button 5 times)
2. Adjust VR2019 so that the phase difference becomes 3+-2 (msec) as shown in Fig. E5.

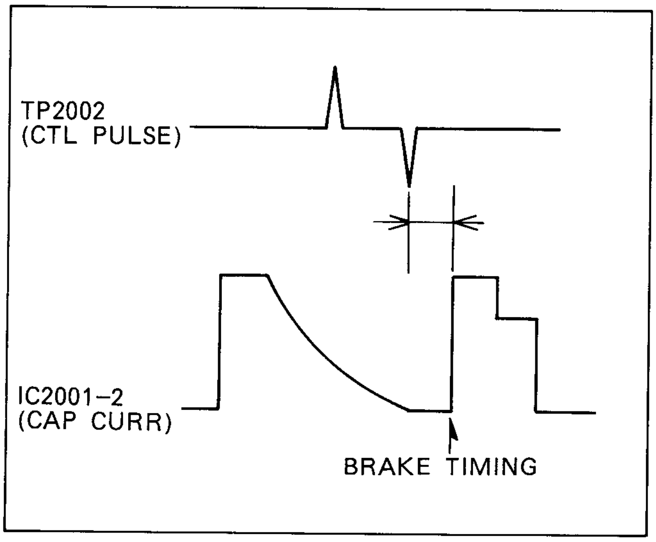


Fig. E5

LUMINANCE, CHROMINANCE & HEAD AMP Section

2-3-7. RECORDING CURRENT ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP507(HOT) TP508(GND)	VR501 (Y) VR502 (C)	RECORDING (SP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	28+-2 (mVp-p) (C) 105+-5 (mVp-p) (Y)	

1. Record the Colour Bar in SP Mode.
2. Connect the Oscilloscope to TP507 (HOT) and TP508 (GND).
3. Turn VR501 so that luminance recording current signal becomes closed. (means minimum waveform)
4. Adjust VR502 so that the Chrominance recording current becomes 28+-2 (mVp-p) as shown in Fig. E6.
5. Next, adjust VR501 so that Luminance Recording current becomes 105+-5 (mVp-p) as shown in Fig. E7.

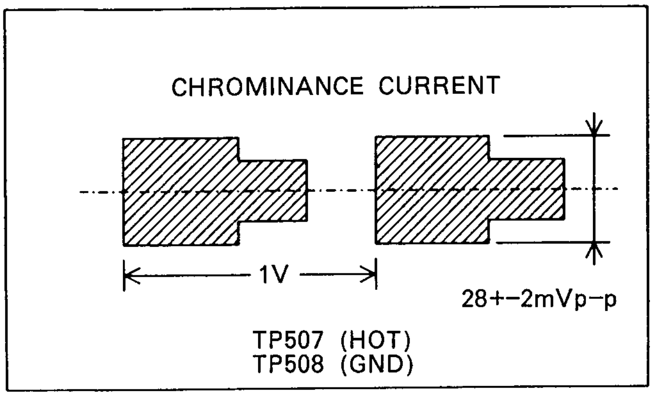

CHROMINANCE CURRENT
1V
28+-2mVp-p
TP507 (HOT)
TP508 (GND)

Fig. E6

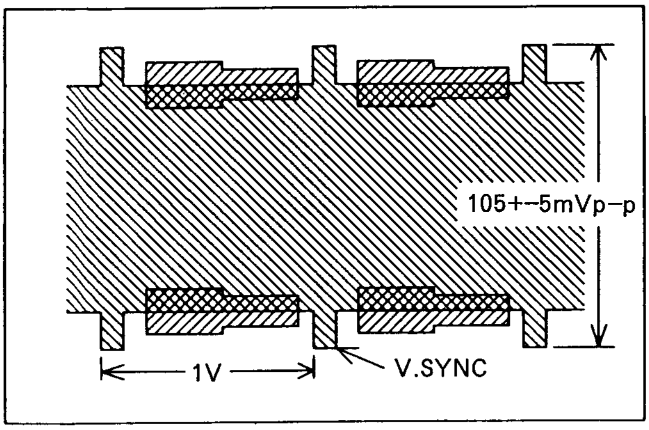

105+-5mVp-p
1V
V.SYNC

Fig. E7

2-3-8. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3012	SELF RECORDING AND PLAYBACK	VIDEO SWEEP SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE/ VIDEO SWEEP GENERATOR	B/A=-1+-1(dB) (90~110(%))	

1. Set the Video Sweep Generator output as shown in Fig. E8.

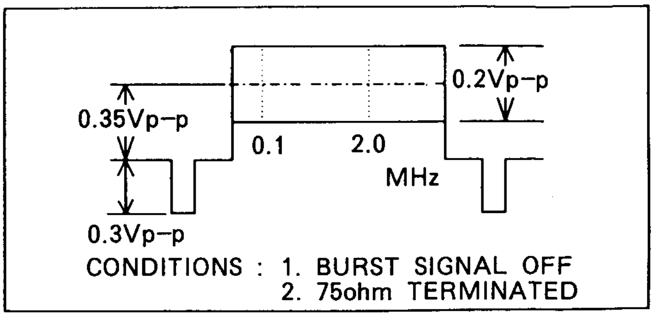

0.35Vp-p
0.2Vp-p
0.1
2.0
MHz
0.3Vp-p
CONDITIONS : 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E8

2. Record the Video Sweep Signal in SP Mode and playback just recorded portion.
3. Set the Tracking control to Fix position.
4. Adjust VR3012 so that the Frequency Response becomes B/A=-1+-1 as shown in Fig. E9.

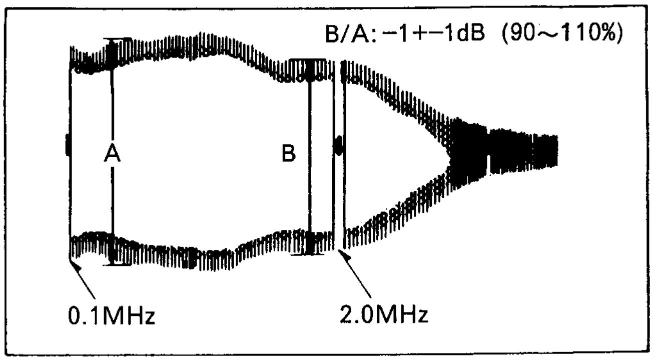


Fig. E9

2-3-9. Y-NR BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
C306(+)	VR302	RECORDING	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVE-FORM IS MINIMIZED	

1. Record the Colour Bar.
2. Connect the Oscilloscope to (+) terminal of C306.
3. Adjust VR302 so that waveform becomes minimum.

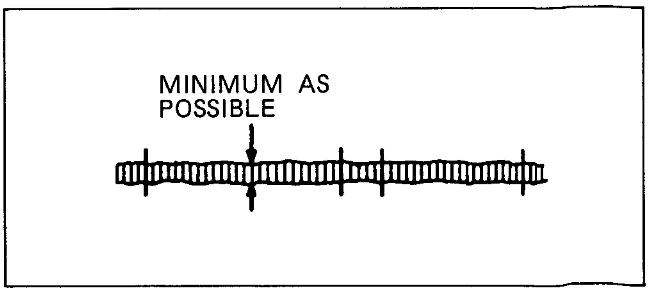

MINIMUM AS POSSIBLE

Fig. E10

2-3-10. CHROMINANCE PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR803	SELF RECORDING AND PLAYBACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.55+-0.05 (Vp-p) (75ohm terminated)	

1. Record the Colour Bar and playback the just recorded portion.
2. Connect the Oscilloscope to TP3002.
3. Adjust so that the Cyan Level becomes 0.55+-0.05 (Vp-p) as shown in Fig. E11.

Achieve this adjustment, the unit must be terminated with 75ohm.

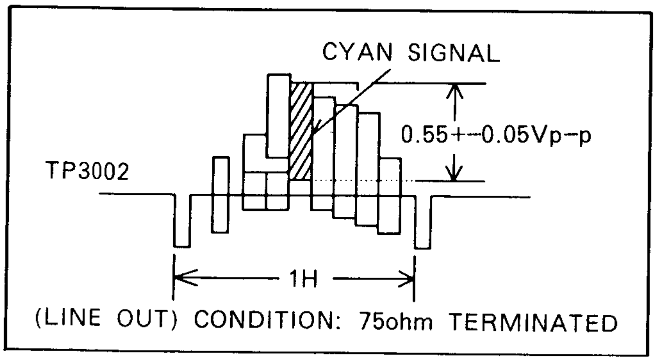


Fig. E11

NORMAL AUDIO Section

2-3-11. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (+) TP4003 (-)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.4+-0.1 (mVrms)	

1. Connect the V.T.V.M. to TP4002 (+) and TP4003 (-). (Do not use long cable for Connection)
2. Make a short circuit between terminal of audio input and GND.
3. Place the Unit in Recording Mode.
4. Adjust VR4002 so that reading of V.T.V.M. becomes 2.4+-0.1 (mVrms).

2-3-12. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	SELF RECORDING (SP MODE)	1kHz,-10dB AUDIO SIG/ VIDEO SIG (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERA-TOR/ V.T.V.M.	E-E LEVEL = -8+-2bB (320mVrms ~ 500mVrms) PLAYBACK LEVEL = E-E LEVEL+-0.5dB (+-20mVrms)	

1. Set the Audio Playback Mode Selector to NORMAL position. (Both the Left and Right Indicators are not lit.)
2. Playback the just recorded portion.
3. Adjust VR4001 so that the level of the playback waveform becomes E-E level+-0.5dB(+-20mVrms)

Note:

1. Before this adjustment, "Tape Interchangeability Adjustment" and "Audio Bias Current Adjustment" must be completed.
2. Video signal must be connected to video input.

Hi-Fi AUDIO Section

2-3-13. AUDIO E-E LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4512		1KHz,-10dB AUDIO SIG
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERA-TOR/ V.T.V.M.	-8+-0.5dB (380~420mVrms)	

1. Set the Audio Playback Mode Selector to STEREO position. (Both the Left and Right Indicators are lit.)
2. Adjust VR4512 so that the audio level becomes -8+-0.5dB(380~420mVrms).

2-3-14. LEVEL METER SENSITIVITY ADJUSTMENT

TP	ADJ.	MODE	INPUT
LEVEL METER	VR4004	STOP	1(KHz) -10(dBV) (316mVrms)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GEN./ V.T.V.M.	0dB INDICATOR JUST LIGHTS UP	

1. Set the Audio Out Selector (On Remote controller) for STEREO position.
2. Set the output of Signal Generator to 1(KHz), −10dBV (316mVrms) and supply it to both Audio input jacks (L) and (R).
3. Adjust VR4004 so that the 0dB of Level Meter just lights up.

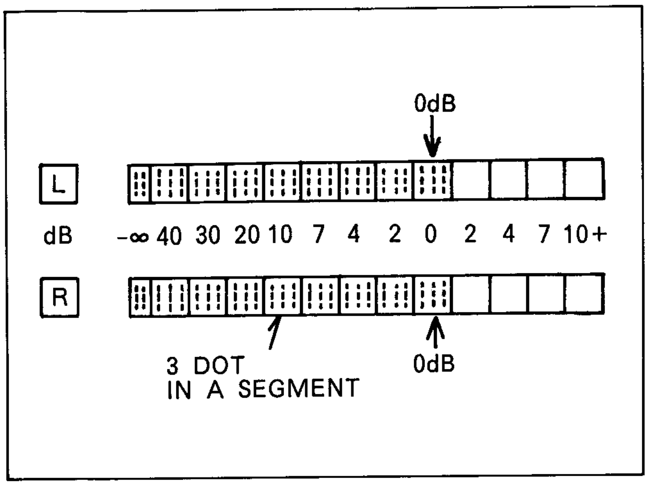


Fig. E12

2-3-15. Hi-Fi AUDIO CARRIER FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
BETWEEN C4566 AND R4563(L) BETWEEN C4516 AND R4513(R)	VR4501(L) VR4509(R)	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	1400+−3KHz(L) 1800+−3KHz(R)	

2-3-16. AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
BETWEEN VR4502 AND R4561 (L) BETWEEN VR4507 AND R4511 (R)	VR4502(L) VR4507(R)	RECORDING	1KHz,−10dB (316mVp−p) AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ D.V.M.	400mVp−p	

1. Set the output of the Signal generator to 1KHz and −10dB, and supply it to both input jacks (L) and (R).
   Next, adjust the recording with the Audio Rec Level Controls so that the audio outputs are 400mVrms at both Output Jacks (L) and (R).
2. Adjust VR4502 to 400mVp−p at between VR4502 and R4561 on HiFi AUDIO C.B.A. for L−Channel.
3. Adjust VR4507 to 400mVp−p at between VR4507 and R4511 on HiFi AUDIO C.B.A. for R−Channel.

TIMER Section

2−3−17. TIMER REFERENCE CLOCK ADJUSTMENT

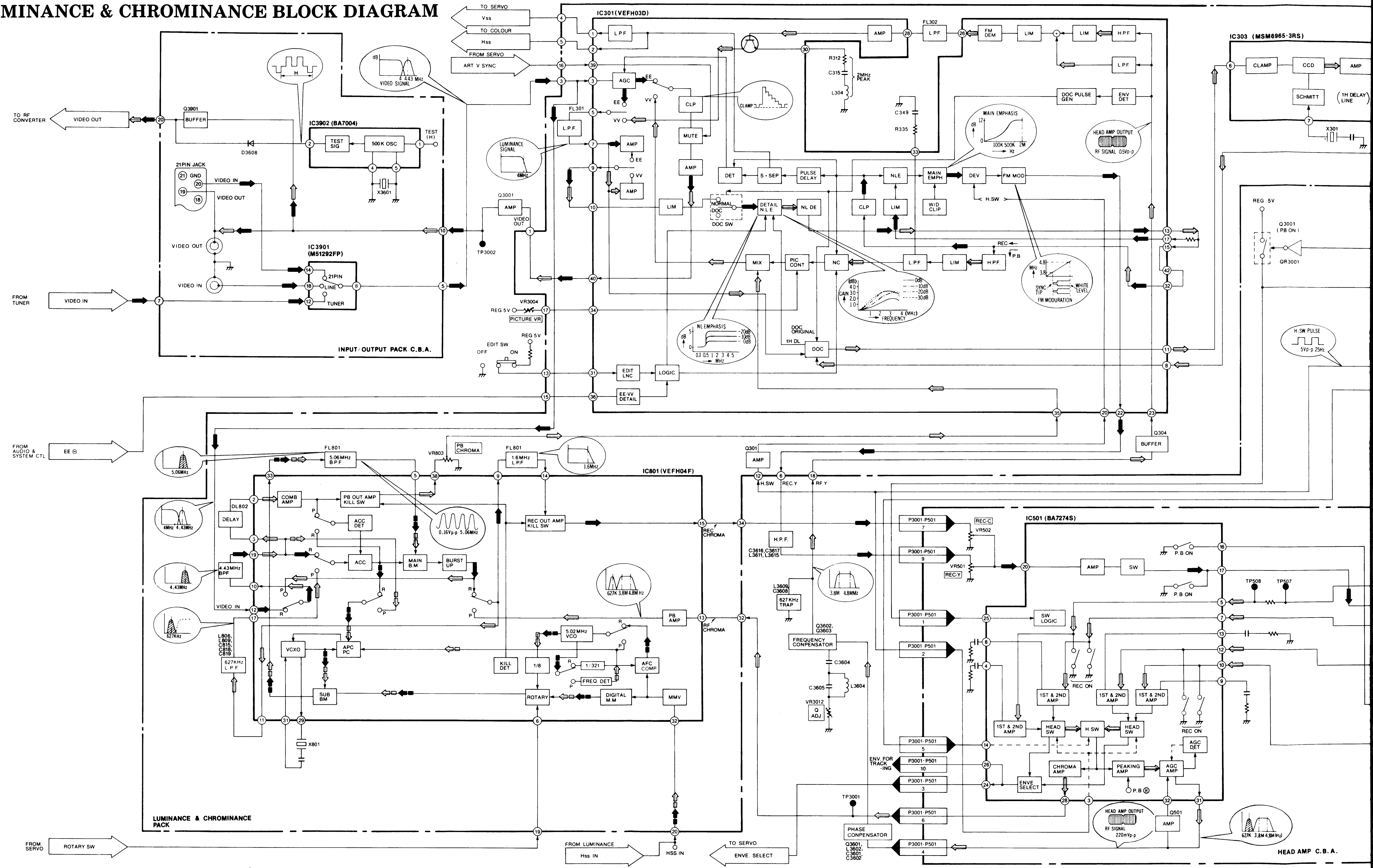
TP	ADJ.	MODE	INPUT
TP7501	C7501	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	7812.5+−0.015 (usec)	

1. Connect the frequency counter to TP7501.
2. Adjust C7501 so that the reading of the frequency counter is 7812.5+−0.015 usec.

Memo

SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. LUMINANCE & CHROMINANCE BLOCK DIAGRAM

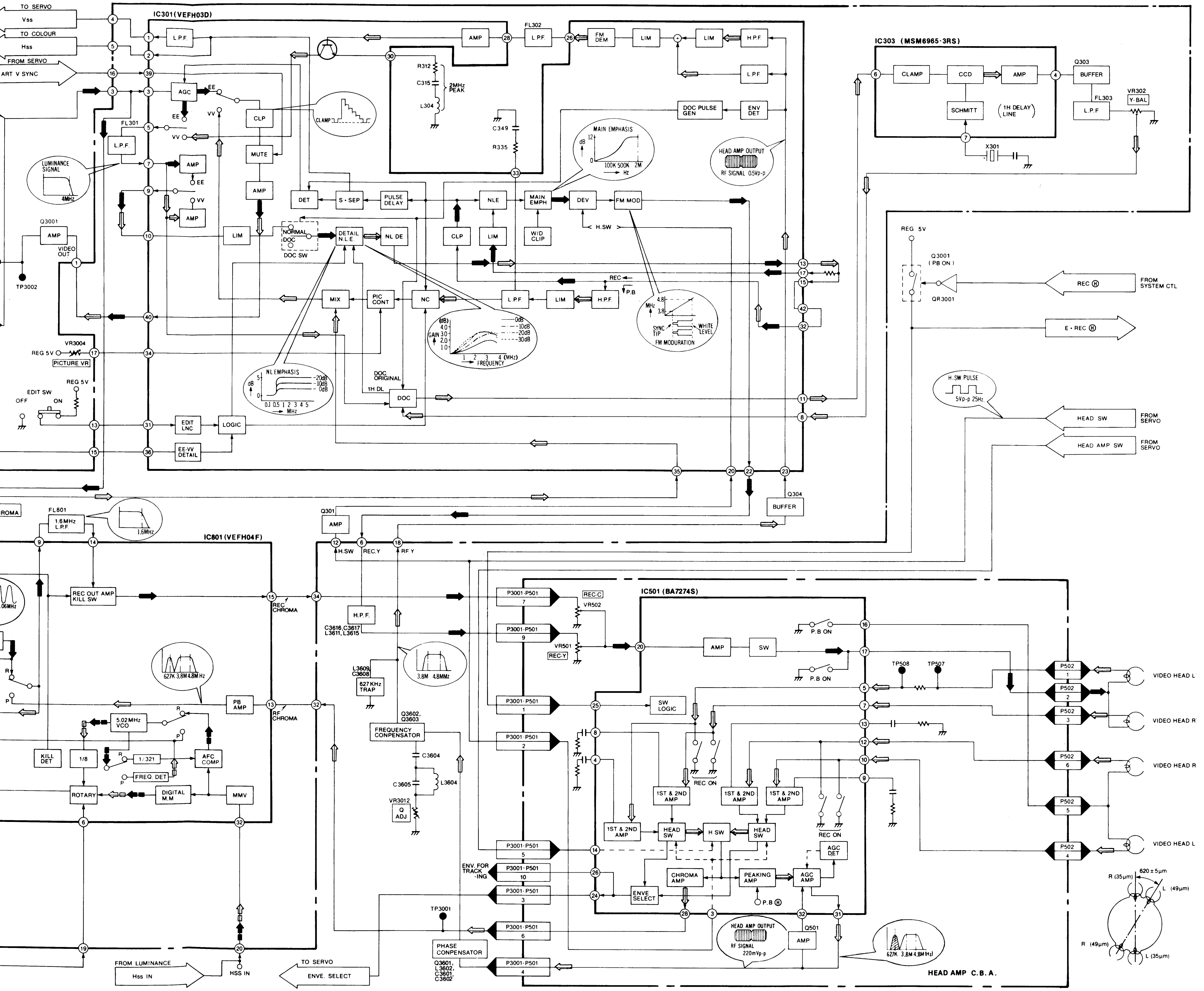
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN REC MO
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBA



TO SERVO
Vss
TO COLOUR
Hss
FROM SERVO
ART V SYNC
IC301 (VEFH03D)
L.P.F
AMP
FL302
L.P.F
FM DEM
LIM
H.P.F
AGC
EE
VV
CLP
CLAMP
MUTE
R312
C315
2MHz PEAK
L304
C349
R335
DOC PULSE GEN
ENV DET
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
1H DELAY LINE
X301
FL301
L.P.F.
LUMINANCE SIGNAL
4MHz
MAIN EMPHASIS
100K 500K 2M
Hz
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
DET
S・SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
W/D CLIP
H.SW
NORMAL
DOC
DOC SW
DETAIL N.L.E.
NL DE
CLP
MIX
PIC CONT
NC
L.P.F
H.P.F
REC
P.B
REG 5V
Q3001 (PB ON)
QR3001
GAIN
FREQUENCY
SYNC TIP
WHITE LEVEL
FM MODURATION
NL EMPHASIS
DOC ORIGINAL
1H DL
DOC
H.SW PULSE
5Vp-p 25Hz
EDIT LNC
LOGIC
EE-VV DETAIL
Q304
BUFFER
TO RF CONVERTER
VIDEO OUT
Q3901
BUFFER
D3608
IC3902 (BA7004)
TEST SIG
500K OSC
TEST (H)
X3601
VIDEO SIGNAL
4.43MHz
21PIN JACK
GND
VIDEO IN
VIDEO OUT
IC3901 (M51292FP)
21PIN
LINE
TUNER
FROM TUNER
VIDEO IN
INPUT/OUTPUT PACK C.B.A.
Q3001
AMP
VIDEO OUT
TP3002
VR3004
REG 5V
PICTURE VR
EDIT SW
OFF
ON
FROM AUDIO & SYSTEM CTL
EE Ⓗ
FL801
5.06MHz B.P.F
VR803
PB CHROMA
FL801
1.6MHz L.P.F
1.6MHz
5.06MHz
IC801 (VEFH04F)
DL802
DELAY
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
REC OUT AMP KILL SW
REC CHROMA
0.16Vp-p 5.06MHz
4MHz 4.43MHz
4.43MHz BPF
4.43MHz
627K 3.8M 4.8MHz
PB AMP
RF CHROMA
VIDEO IN
627KHz
L806, L809, C815, C816, C819
627KHz L.P.F
VCXO
APC PC
5.02MHz VCO
1/8
1/321
FREQ DET
AFC COMP
KILL DET
SUB BM
ROTARY
DIGITAL M.M
MMV
X801
LUMINANCE & CHROMINANCE PACK
FROM SERVO
ROTARY SW
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT
Q301
AMP
H.SW
REC.Y
RF Y
H.P.F.
C3616, C3617
L3611, L3615
L3609, C3608
627KHz TRAP
3.8M 4.8MMz
Q3602, Q3603
FREQUENCY CONPENSATOR
C3604
C3605
L3604
VR3012
Q ADJ
TP3001
PHASE CONPENSATOR
Q3601, Q3602, C3601, C3602
P3001-P501
REC-C
VR502
VR501
REC-Y
IC501 (BA7274S)
AMP
SW
P.B ON
TP508
TP507
SW LOGIC
REC ON
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
ENV. FOR TRACK-ING
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
P.B Ⓗ
Q501
AMP
HEAD AMP OUTPUT
RF SIGNAL 220mVp-p
627K 3.8M 4.8MHz
HEAD AMP C.B.A.

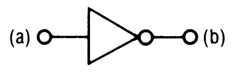
GRAMS

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE


TO SERVO
Vss
TO COLOUR
Hss
FROM SERVO
ART V SYNC
IC301 (VEFH03D)
L.P.F
AMP
FL302
L.P.F
FM DEM
LIM
LIM
H.P.F
L.P.F
AGC
EE
VV
CLP
CLAMP
R312
C315
2MHz PEAK
L304
C349
R335
DOC PULSE GEN
ENV DET
FL301
L.P.F.
LUMINANCE SIGNAL
4MHz
AMP
MUTE
AMP
MAIN EMPHASIS
100K 500K 2M
Hz
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
DET
S・SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
Q3001
AMP
VIDEO OUT
TP3002
LIM
NORMAL
DOC
DOC SW
DETAIL N.L.E
NL DE
CLP
LIM
W/D CLIP
H.SW
MIX
PIC CONT
NC
L.P.F
LIM
H.P.F
REC
P.B
GAIN
FREQUENCY
WHITE LEVEL
SYNC TIP
FM MODURATION
VR3004
REG 5V
PICTURE VR
REG 5V
EDIT SW
OFF
ON
NL EMPHASIS
DOC ORIGINAL
1H DL
DOC
EDIT LNC
LOGIC
EE-VV DETAIL
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
1H DELAY LINE
X301
Q303
BUFFER
FL303
L.P.F
VR302
Y-BAL
REG 5V
Q3001 (PB ON)
QR3001
REC H
FROM SYSTEM CTL
E・REC H
H.SW PULSE
5Vp-p 25Hz
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
Q304
BUFFER
ROMA
FL801
1.6MHz L.P.F
1.6MHz
IC801 (VEFH04F)
Q301
AMP
H.SW
REC.Y
RF Y
REC OUT AMP KILL SW
REC CHROMA
H.P.F.
C3616, C3617
L3611, L3615
L3609
C3608
627KHz TRAP
3.8M 4.8MHz
627K 3.8M 4.8MHz
PB AMP
RF CHROMA
5.02MHz VCO
R
P
1/321
AFC COMP
FREQ DET
KILL DET
1/8
ROTARY
DIGITAL M.M
MMV
Q3602, Q3603
FREQUENCY CONPENSATOR
C3604
C3605
L3604
VR3012
Q ADJ
P3001-P501
REC.C
VR502
VR501
REC.Y
IC501 (BA7274S)
AMP
SW
P.B ON
TP508
TP507
SW LOGIC
REC ON
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
P.B H
ENV. FOR TRACK-ING
TP3001
PHASE CONPENSATOR
Q3601, L3602, C3601, C3602
HEAD AMP OUTPUT
RF SIGNAL
220mVp-p
Q501
AMP
HEAD AMP C.B.A.
P502
VIDEO HEAD L
VIDEO HEAD R
620±5μm
R (35μm)
L (49μm)
R (49μm)
L (35μm)
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT

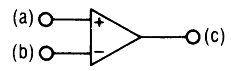
SYMBOL	TRUTH VALUE TABLE

INVERTER



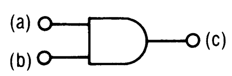
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



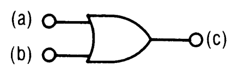
IN	(a) (b)	(a) > (b)	(a) < (b)
OUT	(c)	H	L

AND CIRCUIT



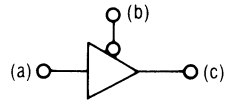
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

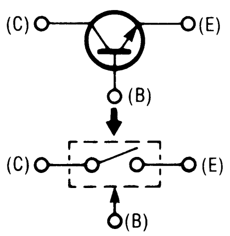
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

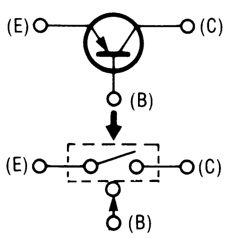
※ High Impedance

TR. SW (NPN TYPE)



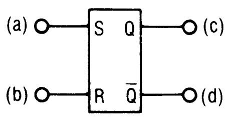
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

R-S TYPE FLIP-FLOP



IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

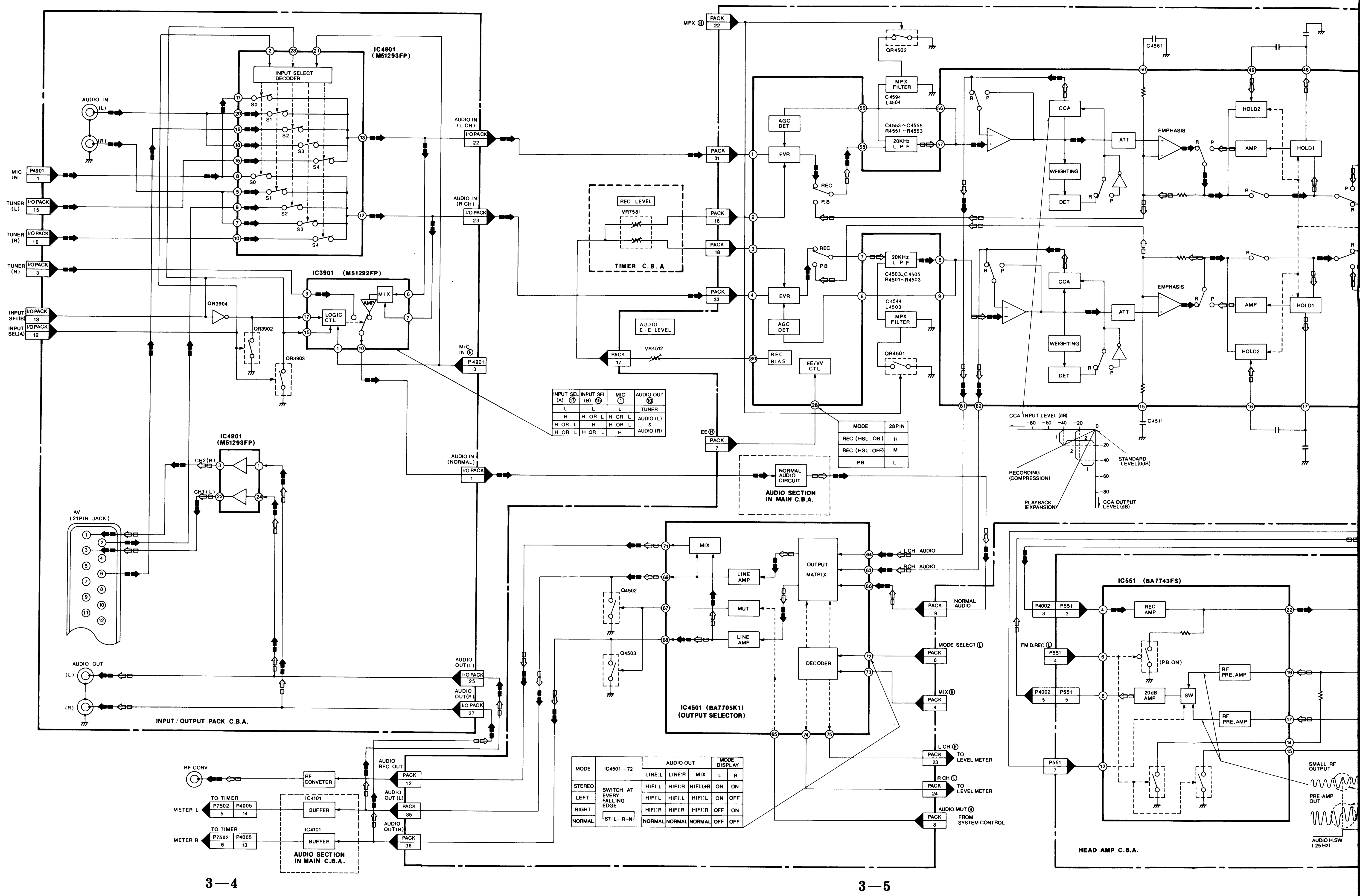
※ Initial condition is maintained.
◆ Initial condition is reverced.

Next Page:
Hi-Fi AUDIO Section

3-2. Hi-Fi AUDIO BLOCK DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBA

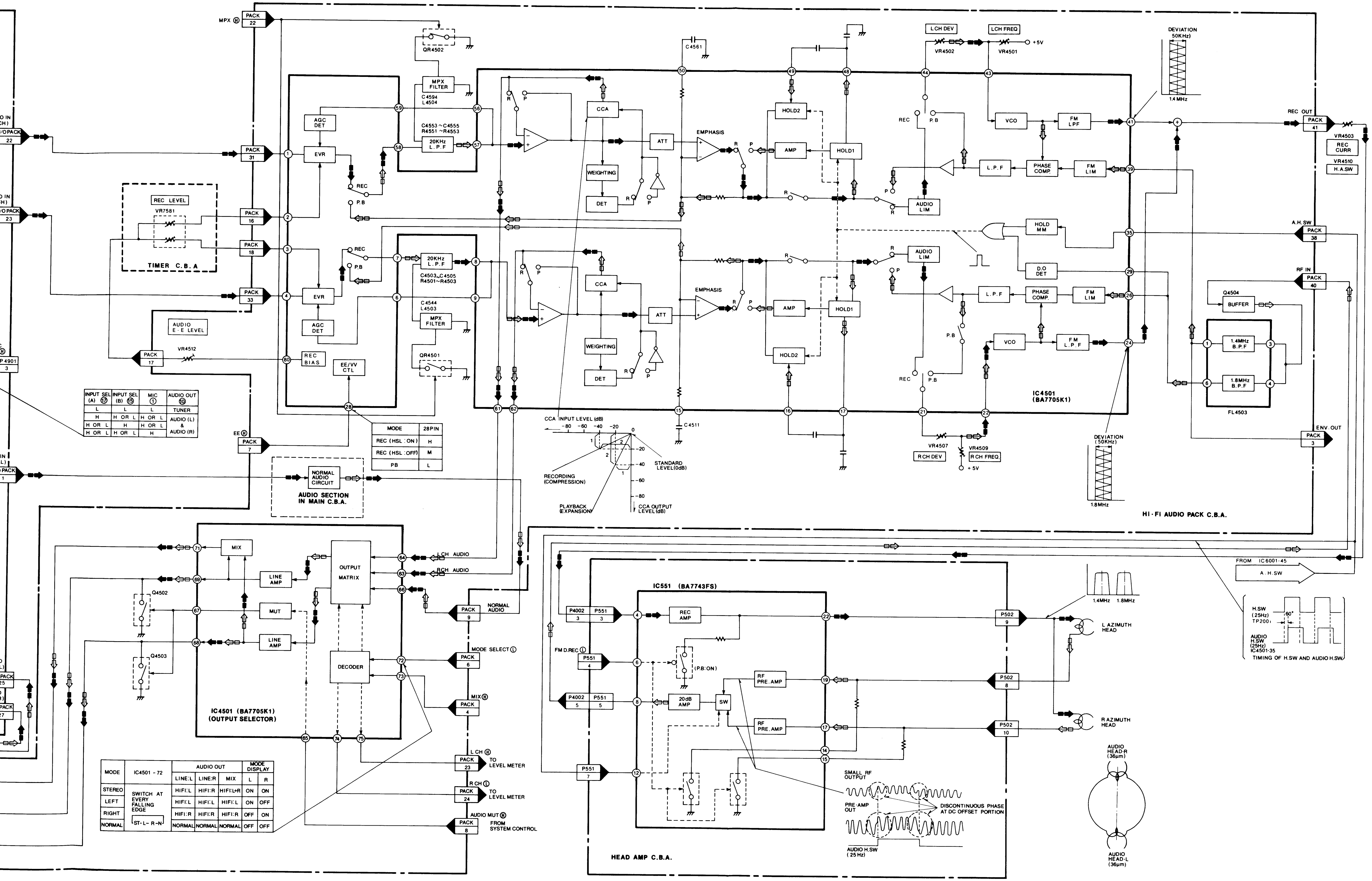

IC4901 (M51293FP)
INPUT SELECT DECODER
S0
S1
S2
S3
S4
AUDIO IN
(L)
(R)
MIC IN
P4901 1
TUNER (L)
I/O PACK 15
TUNER (R)
I/O PACK 16
TUNER (N)
I/O PACK 3
INPUT SEL(B)
I/O PACK 13
INPUT SEL(A)
I/O PACK 12
QR3904
QR3902
QR3903
IC3901 (M51292FP)
LOGIC CTL
AMP
MIX
AUDIO IN (L CH)
I/O PACK 22
AUDIO IN (R CH)
I/O PACK 23
MIC IN Ⓗ
P4901 3
AUDIO IN (NORMAL)
I/O PACK 1
IC4901 (M51293FP)
CH2(R)
CH1(L)
AV (21PIN JACK)
AUDIO OUT
(L)
(R)
AUDIO OUT(L)
I/O PACK 25
AUDIO OUT(R)
I/O PACK 27
INPUT / OUTPUT PACK C.B.A.
RF CONV.
RF CONVETER
AUDIO RFC OUT
PACK 12
TO TIMER
P7502 5
P4005 14
METER L
TO TIMER
P7502 6
P4005 13
METER R
IC4101
BUFFER
IC4101
BUFFER
AUDIO SECTION IN MAIN C.B.A.
AUDIO OUT(L)
PACK 35
AUDIO OUT(R)
PACK 36
REC LEVEL
VR7581
TIMER C.B.A
AUDIO E·E LEVEL
VR4512
PACK 17
EE Ⓗ
PACK 7
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A.
MPX Ⓗ
PACK 22
QR4502
MPX FILTER
C4594
L4504
AGC DET
EVR
C4553~C4555
R4551~R4553
20KHz L.P.F
REC
P.B
PACK 31
PACK 16
PACK 18
PACK 33
20KHz L.P.F
C4503~C4505
R4501~R4503
C4544
L4503
MPX FILTER
AGC DET
EVR
REC BIAS
EE/VV CTL
QR4501
CCA
WEIGHTING
DET
ATT
EMPHASIS
AMP
HOLD1
HOLD2
C4561
C4511
R
P
CCA INPUT LEVEL (dB)
-80
-60
-40
-20
0
-20
-40
-60
-80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL(dB)
IC4501 (BA7705K1) (OUTPUT SELECTOR)
MIX
LINE AMP
MUT
LINE AMP
OUTPUT MATRIX
DECODER
Q4502
Q4503
L CH AUDIO
R CH AUDIO
NORMAL AUDIO
PACK 9
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
L CH Ⓗ
PACK 23
TO LEVEL METER
R CH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
IC551 (BA7743FS)
P4002 3
P551 3
REC AMP
FM D.REC Ⓛ
P551 4
(P.B:ON)
P4002 5
P551 5
20dB AMP
SW
RF PRE.AMP
RF PRE.AMP
P551 7
SMALL RF OUTPUT
PRE-AMP OUT
AUDIO H.SW (25Hz)
HEAD AMP C.B.A.

INPUT SEL (A) ⑰	INPUT SEL (B) ⑮	MIC ①	AUDIO OUT ⑩
L	L	L	TUNER
H	H OR L	H OR L	AUDIO (L) & AUDIO (R)
H OR L	H	H OR L	
H OR L	H OR L	H	

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE ST- L- R-N	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

◀■ MAIN SIGNAL PATH IN REC MODE   ◁□ MAIN SIGNAL PATH IN PLAYBACK MODE

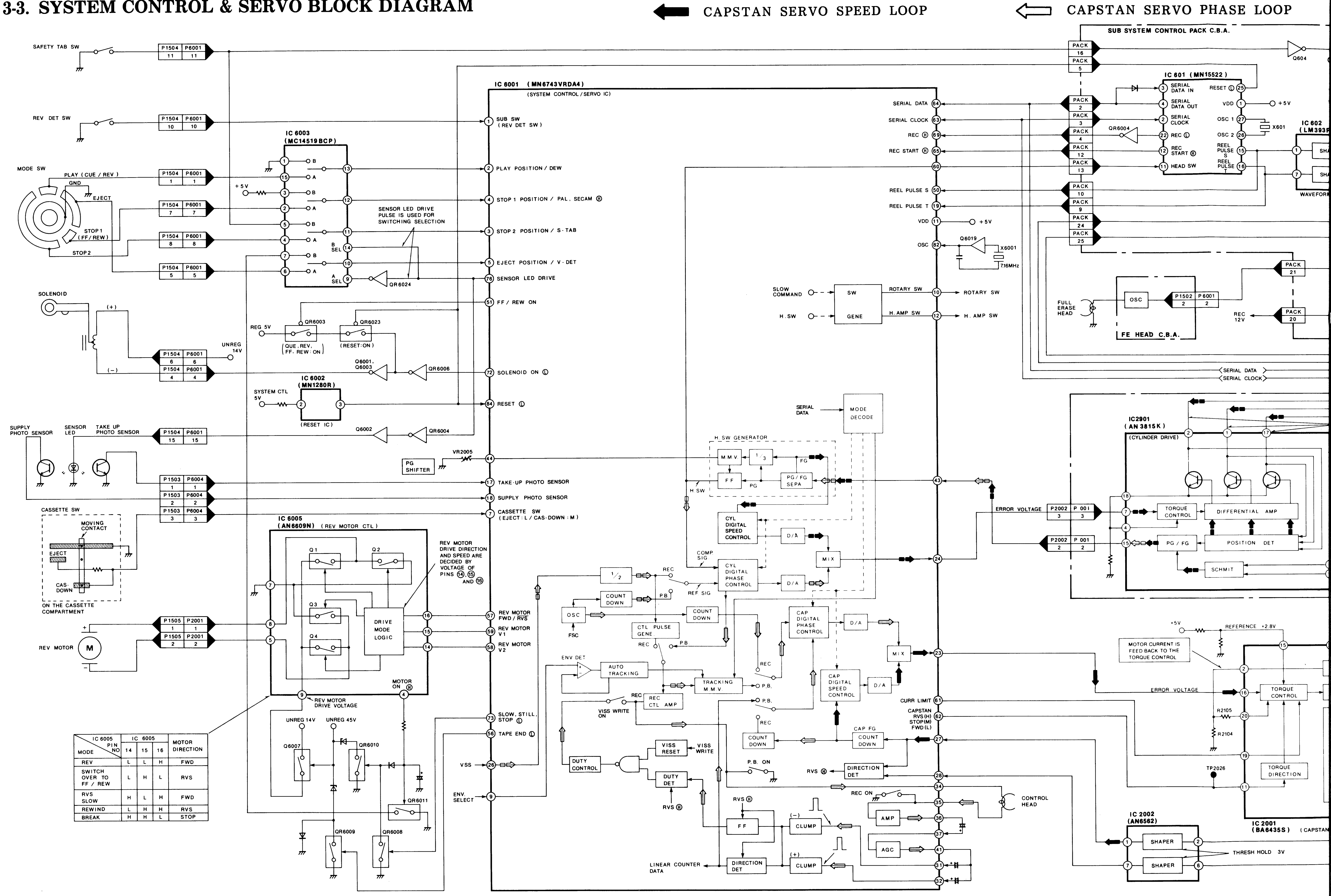

MPX Ⓗ
PACK 22
QR4502
MPX FILTER
C4594 L4504
C4553~C4555 R4551~R4553
20KHz L.P.F
AGC DET
EVR
REC
P.B
PACK 31
PACK 16
PACK 18
PACK 33
REC LEVEL
VR7581
TIMER C.B.A
AUDIO E·E LEVEL
PACK 17
VR4512
REC BIAS
EE/VV CTL
C4503~C4505 R4501~R4503
C4544 L4503
QR4501
EE Ⓗ
PACK 7
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A.
C4561
CCA
WEIGHTING
DET
ATT
EMPHASIS
HOLD2
HOLD1
AMP
AUDIO LIM
LCH DEV
LCH FREQ
VR4502
VR4501
+5V
VCO
FM LPF
PHASE COMP.
FM LIM
L.P.F
HOLD MM
D.O DET
DEVIATION 50KHz)
1.4 MHz
REC OUT
PACK 41
VR4503 REC CURR
VR4510 H.A.SW
A.H.SW
PACK 38
RF IN
PACK 40
Q4504
BUFFER
1.4MHz B.P.F
1.8MHz B.P.F
FL4503
ENV. OUT
PACK 3
IC4501 (BA7705K1)
C4511
VR4507
RCH DEV
VR4509
RCH FREQ.
DEVIATION (50KHz)
1.8MHz
HI-FI AUDIO PACK C.B.A.
CCA INPUT LEVEL (dB)
-80 -60 -40 -20 0
-20 -40 -60 -80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL (dB)
MIX
LINE AMP
MUT
Q4502
Q4503
OUTPUT MATRIX
DECODER
LCH AUDIO
RCH AUDIO
PACK 9
NORMAL AUDIO
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
IC4501 (BA7705K1) (OUTPUT SELECTOR)
L CH Ⓗ
PACK 23
TO LEVEL METER
R CH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
FROM IC6001-45
A.H.SW
IC551 (BA7743FS)
P4002 3
P551 3
REC AMP
FM D.REC Ⓛ
P551 4
(P.B:ON)
P4002 5
P551 5
20dB AMP
SW
RF PRE.AMP
P551 7
P502 9
P502 8
P502 10
1.4MHz 1.8MHz
L AZIMUTH HEAD
R AZIMUTH HEAD
SMALL RF OUTPUT
PRE-AMP OUT
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H.SW (25Hz)
HEAD AMP C.B.A.
AUDIO HEAD-R (36μm)
AUDIO HEAD-L (36μm)
H.SW (25Hz) TP200
60°
AUDIO H.SW (25Hz) IC4501-35
TIMING OF H.SW AND AUDIO H.SW

INPUT SEL (A) ⑰	INPUT SEL (B) ⑮	MIC ①	AUDIO OUT ⑩
L	L	L	TUNER
H	H OR L	H OR L	AUDIO (L) & AUDIO (R)
H OR L	H	H OR L	
H OR L	H OR L	H	

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

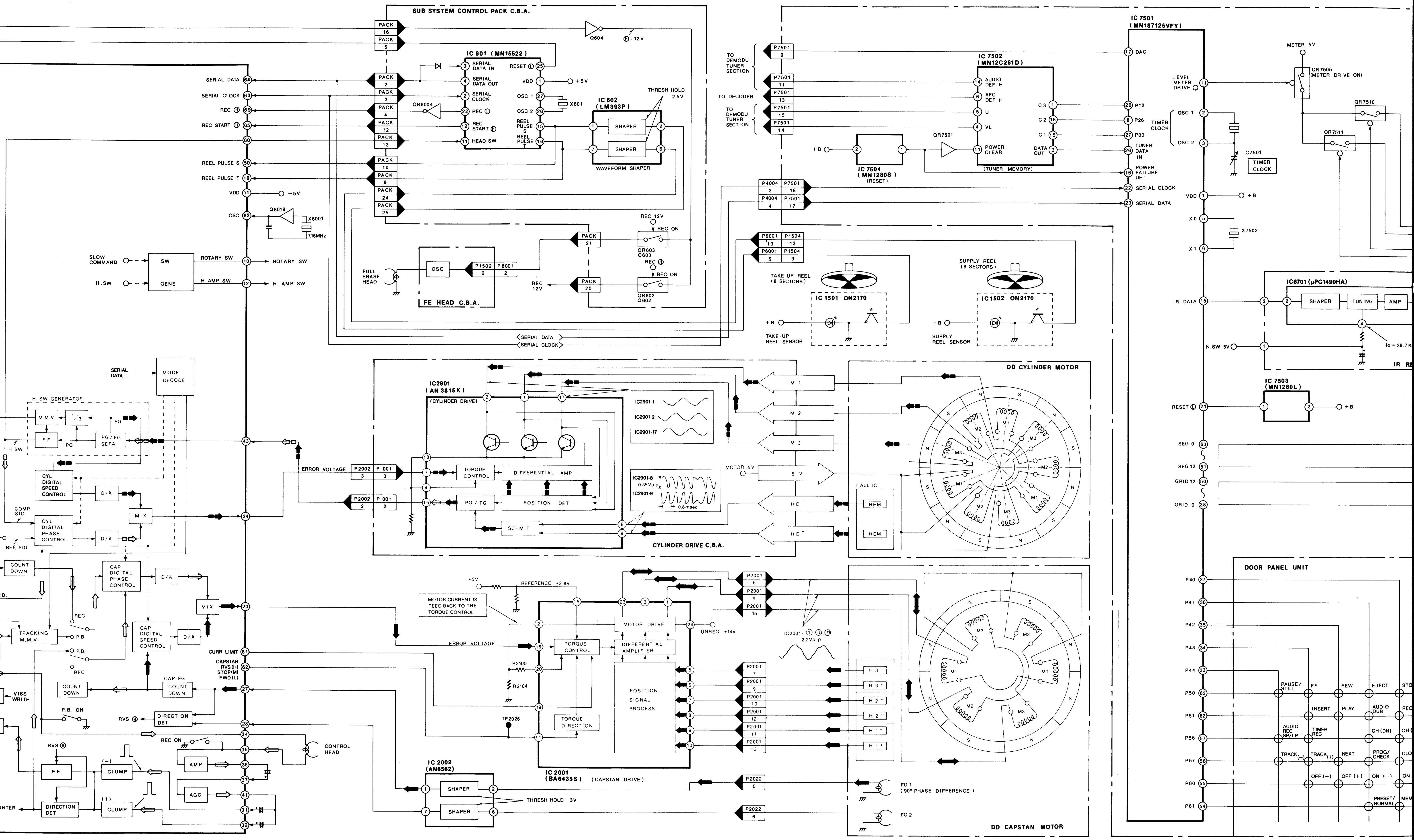
MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE ST-L-R-N	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

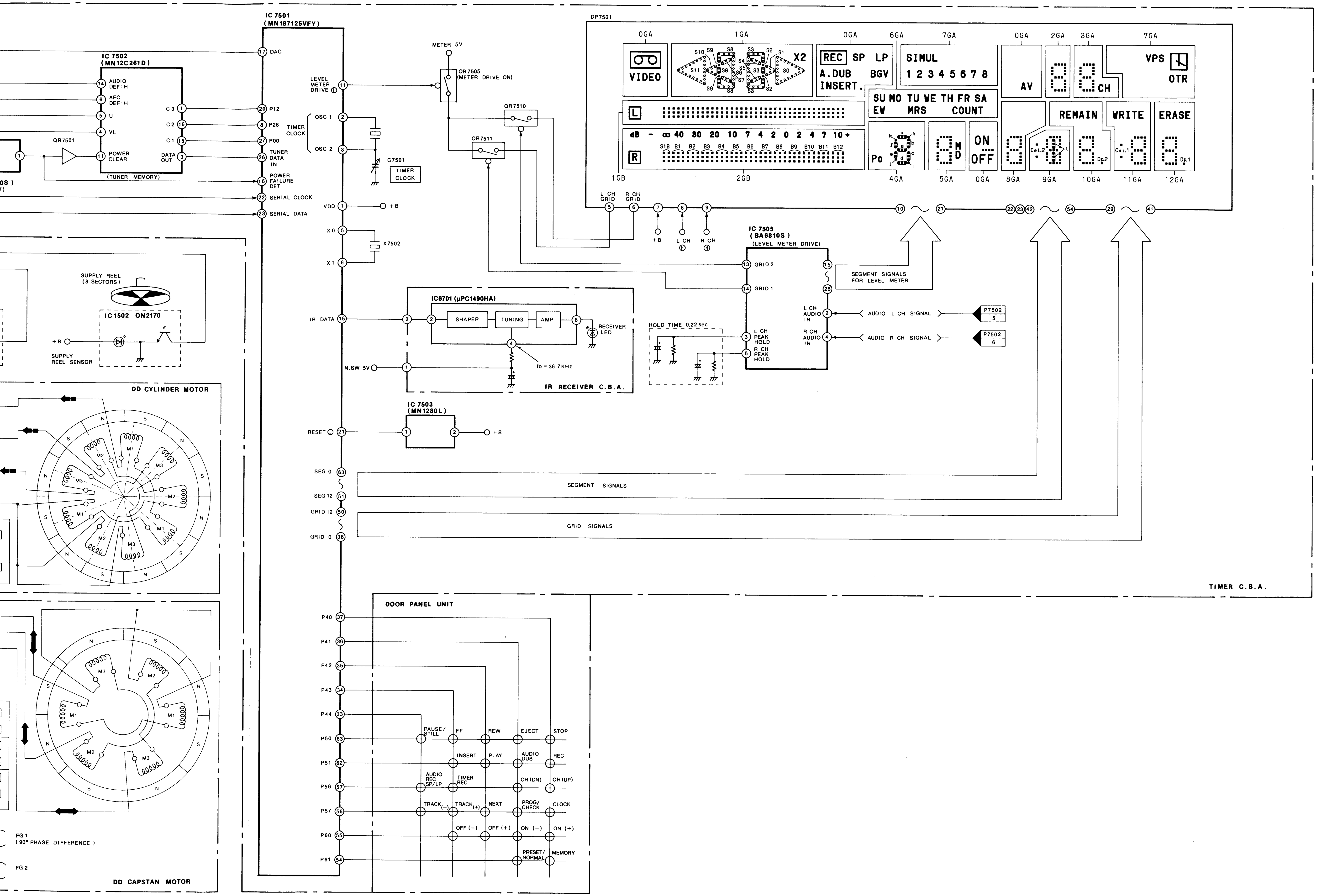
3-3. SYSTEM CONTROL & SERVO BLOCK DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
SAFETY TAB SW
REV DET SW
MODE SW
PLAY (CUE / REV)
GND
EJECT
STOP 1 (FF / REW)
STOP 2
SOLENOID
UNREG 14V
SUPPLY PHOTO SENSOR
SENSOR LED
TAKE UP PHOTO SENSOR
CASSETTE SW
MOVING CONTACT
CAS-DOWN
ON THE CASSETTE COMPARTMENT
REV MOTOR
P1504
P6001
P1503
P6004
P1505
P2001
IC 6003 (MC14519BCP)
SENSOR LED DRIVE PULSE IS USED FOR SWITCHING SELECTION
B SEL
A SEL
QR6024
REG 5V
QR6003
QR6023
(QUE, REV, FF, REW : ON)
(RESET : ON)
Q6001, Q6003
QR6006
IC 6002 (MN1280R)
SYSTEM CTL 5V
(RESET IC)
Q6002
QR6004
PG SHIFTER
VR2005
IC 6005 (AN6609N) (REV MOTOR CTL)
DRIVE MODE LOGIC
REV MOTOR DRIVE DIRECTION AND SPEED ARE DECIDED BY VOLTAGE OF PINS ⑭, ⑮ AND ⑯
REV MOTOR DRIVE VOLTAGE
MOTOR ON Ⓗ
UNREG 14V
UNREG 45V
Q6007
QR6010
QR6011
QR6009
QR6008
IC 6001 (MN6743VRDA4)
(SYSTEM CONTROL / SERVO IC)
SUB SW (REV DET SW)
PLAY POSITION / DEW
STOP 1 POSITION / PAL, SECAM Ⓗ
STOP 2 POSITION / S-TAB
EJECT POSITION / V-DET
SENSOR LED DRIVE
FF / REW ON
SOLENOID ON Ⓛ
RESET Ⓛ
TAKE-UP PHOTO SENSOR
SUPPLY PHOTO SENSOR
CASSETTE SW (EJECT : L / CAS-DOWN : M)
REV MOTOR FWD / RVS
REV MOTOR V1
REV MOTOR V2
SLOW, STILL, STOP Ⓛ
TAPE END Ⓛ
VSS
ENV. SELECT
SERIAL DATA
SERIAL CLOCK
REC Ⓗ
REC START Ⓗ
REEL PULSE S
REEL PULSE T
VDD
+5V
OSC
Q6019
X6001
716MHz
SLOW COMMAND
H. SW
SW
GENE
ROTARY SW
H. AMP SW
SERIAL DATA
MODE DECODE
H. SW GENERATOR
M.M.V
1/3
FG
F F
PG
PG / FG SEPA
H SW
CYL DIGITAL SPEED CONTROL
D / A
MIX
COMP SIG
CYL DIGITAL PHASE CONTROL
REF SIG
1/2
REC
COUNT DOWN
P.B
OSC
FSC
CTL PULSE GENE
CAP DIGITAL PHASE CONTROL
ENV DET
AUTO TRACKING
TRACKING M.M.V
P.B.
REC CTL AMP
VISS WRITE ON
CAP DIGITAL SPEED CONTROL
CAP FG
VISS RESET
VISS WRITE
DUTY CONTROL
DUTY DET
RVS Ⓗ
P.B. ON
DIRECTION DET
REC ON
CONTROL HEAD
FF
(−) CLUMP
(+) CLUMP
AMP
AGC
LINEAR COUNTER DATA
ERROR VOLTAGE
CURR LIMIT
CAPSTAN RVS (H) STOP (M) FWD (L)
SUB SYSTEM CONTROL PACK C.B.A.
PACK
Q604
IC 601 (MN15522)
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
QR6004
REC Ⓛ
REC START Ⓗ
HEAD SW
RESET Ⓛ
VDD
OSC 1
OSC 2
X601
REEL PULSE S
REEL PULSE T
IC 602 (LM393
WAVEFOR
FULL ERASE HEAD
OSC
P1502
FE HEAD C.B.A.
REC 12V
SERIAL DATA
SERIAL CLOCK
IC2901 (AN 3815K)
(CYLINDER DRIVE)
P2002
P 001
TORQUE CONTROL
DIFFERENTIAL AMP
PG / FG
POSITION DET
SCHMIT
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
TORQUE CONTROL
R2105
R2104
TP2026
TORQUE DIRECTION
IC 2001 (BA6435S) (CAPSTAN
IC 2002 (AN6562)
SHAPER
THRESH HOLD 3V

IC 6005 PIN NO / MODE	IC 6005 14	15	16	MOTOR DIRECTION
REV	L	L	H	FWD
SWITCH OVER TO FF / REW	L	H	L	RVS
RVS SLOW	H	L	H	FWD
REWIND	L	H	H	RVS
BREAK	H	H	L	STOP

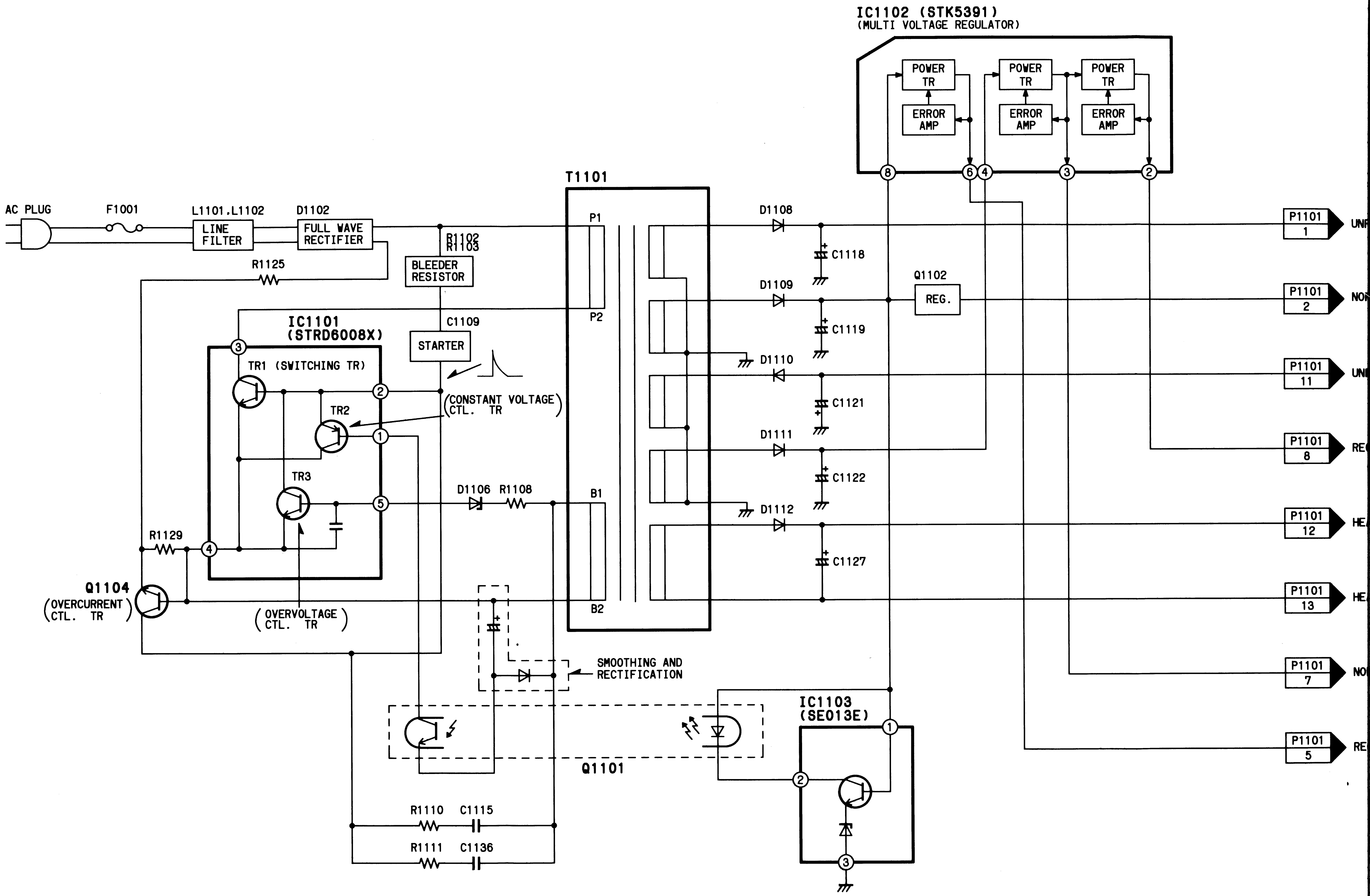
■ CAPSTAN SERVO SPEED LOOP ⇦ CAPSTAN SERVO PHASE LOOP ■■ CYLINDER SERVO SPEED LOOP ⇦□ CYLINDER SERVO PHASE LOOP

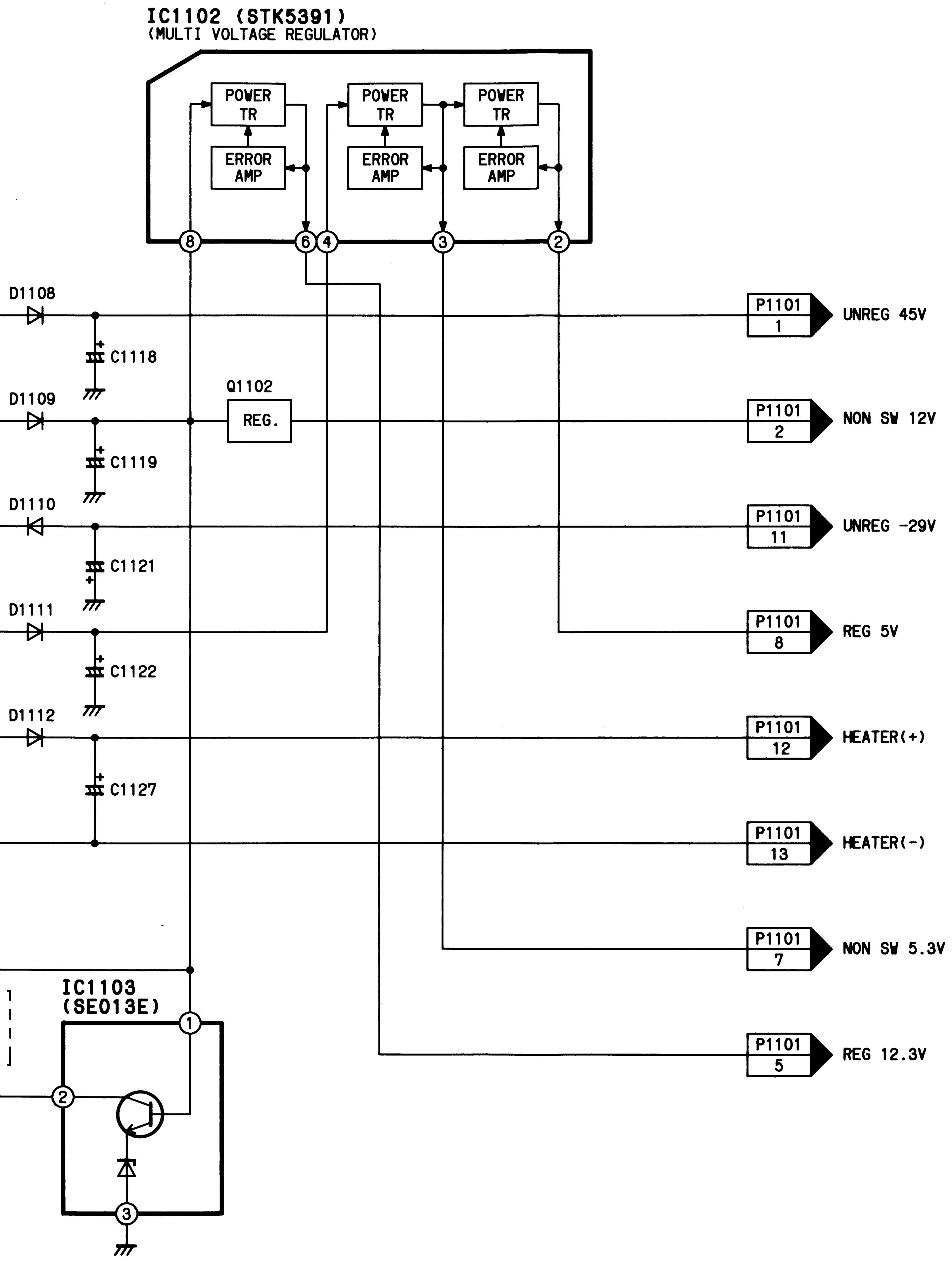

SUB SYSTEM CONTROL PACK C.B.A.
IC 601 (MN15522)
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
REC Ⓛ
REC START Ⓗ
HEAD SW
RESET Ⓛ
VDD
OSC 1
OSC 2
REEL PULSE S
REEL PULSE T
X601
+5V
IC 602 (LM393P)
SHAPER
WAVEFORM SHAPER
THRESH HOLD 2.5V
Q604
Ⓗ: 12V
QR6004
SERIAL DATA
SERIAL CLOCK
REC Ⓗ
REC START Ⓗ
REEL PULSE S
REEL PULSE T
VDD
OSC
Q6019
X6001
7.16MHz
SLOW COMMAND
H.SW
SW GENE
ROTARY SW
H.AMP SW
REC 12V
REC ON
QR603 Q603
REC Ⓗ
QR602 Q602
REC 12V
FULL ERASE HEAD
OSC
FE HEAD C.B.A.
SERIAL DATA
SERIAL CLOCK
SERIAL DATA
MODE DECODE
H.SW GENERATOR
M.M.V
1/3
FG
FF
PG
PG/FG SEPA
H SW
CYL DIGITAL SPEED CONTROL
D/A
MIX
COMP SIG
CYL DIGITAL PHASE CONTROL
REF SIG
COUNT DOWN
CAP DIGITAL PHASE CONTROL
REC
TRACKING M.M.V.
P.B.
CAP DIGITAL SPEED CONTROL
CURR LIMIT
CAPSTAN RVS(H) STOP(M) FWD(L)
COUNT DOWN
CAP FG COUNT DOWN
VISS WRITE
P.B. ON
RVS Ⓗ
DIRECTION DET
REC ON
AMP
AGC
CONTROL HEAD
FF
CLUMP
DIRECTION DET
ERROR VOLTAGE
IC2901 (AN3815K)
(CYLINDER DRIVE)
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SCHMIT
IC2901-1
IC2901-2
IC2901-17
IC2901-8
IC2901-9
0.35Vp-p
0.8msec
CYLINDER DRIVE C.B.A.
MOTOR 5V
M1
M2
M3
5V
HE⁻
HE⁺
HALL IC
HEM
DD CYLINDER MOTOR
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2105
R2104
TP2026
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
MOTOR DRIVE
POSITION SIGNAL PROCESS
TORQUE DIRECTION
UNREG +14V
IC 2001 (BA6435S) (CAPSTAN DRIVE)
IC2001-①,③,㉓
2.2Vp-p
IC 2002 (AN6562)
SHAPER
THRESH HOLD 3V
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
FG 1 (90° PHASE DIFFERENCE)
FG 2
DD CAPSTAN MOTOR
TO DEMODU TUNER SECTION
TO DECODER
IC 7502 (MN12C261D)
AUDIO DEF: H
AFC DEF: H
U
VL
POWER CLEAR
C3
C2
C1
DATA OUT
(TUNER MEMORY)
IC 7504 (MN1280S) (RESET)
QR7501
+B
TAKE-UP REEL (8 SECTORS)
IC 1501 ON2170
TAKE-UP REEL SENSOR
SUPPLY REEL (8 SECTORS)
IC 1502 ON2170
SUPPLY REEL SENSOR
IC 7501 (MN187125VFY)
DAC
P12
P26
P00
TUNER DATA IN
POWER FAILURE DET
SERIAL CLOCK
SERIAL DATA
LEVEL METER DRIVE Ⓛ
TIMER CLOCK
OSC 1
OSC 2
C7501
TIMER CLOCK
METER 5V
QR7505 (METER DRIVE ON)
QR7510
QR7511
VDD
X0
X1
X7502
IR DATA
IC6701 (μPC1490HA)
SHAPER
TUNING
AMP
fo = 36.7K
N.SW 5V
IR RE
IC 7503 (MN1280L)
RESET Ⓛ
SEG 0
SEG 12
GRID 12
GRID 0
DOOR PANEL UNIT
P40
P41
P42
P43
P44
P50
P51
P56
P57
P60
P61
PAUSE/STILL
FF
REW
EJECT
INSERT
PLAY
AUDIO DUB
AUDIO REC SP/LP
TIMER REC
CH (DN)
TRACK (−)
TRACK (+)
NEXT
PROG/CHECK
OFF (−)
OFF (+)
ON (−)
PRESET/NORMAL


IC 7501
(MN187125VFY)
IC 7502
(MN12C261D)
AUDIO DEF:H
AFC DEF:H
U
VL
POWER CLEAR
C3
C2
C1
DATA OUT
(TUNER MEMORY)
QR7501
0S)
DAC
P12
P26
P00
TIMER CLOCK
TUNER DATA IN
POWER FAILURE DET
SERIAL CLOCK
SERIAL DATA
LEVEL METER DRIVE
OSC 1
OSC 2
VDD
X0
X1
X7502
C7501
TIMER CLOCK
METER 5V
QR7505 (METER DRIVE ON)
QR7510
QR7511
+B
DP7501
0GA
1GA
6GA
7GA
2GA
3GA
VIDEO
X2
REC SP LP
A.DUB BGV
INSERT.
SIMUL
1 2 3 4 5 6 7 8
AV
CH
VPS
OTR
SU MO TU WE TH FR SA
EW MRS COUNT
REMAIN
WRITE
ERASE
L
R
dB - ∞ 40 30 20 10 7 4 2 0 2 4 7 10+
S18 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12
Po
M
D
ON
OFF
1GB
2GB
4GA
5GA
8GA
9GA
10GA
11GA
12GA
L CH GRID
R CH GRID
L CH
R CH
IC 7505
(BA6810S)
(LEVEL METER DRIVE)
GRID 2
GRID 1
L CH AUDIO IN
R CH AUDIO IN
L CH PEAK HOLD
R CH PEAK HOLD
SEGMENT SIGNALS FOR LEVEL METER
AUDIO L CH SIGNAL
AUDIO R CH SIGNAL
P7502 5
P7502 6
HOLD TIME 0.22 sec
SUPPLY REEL
(8 SECTORS)
IC1502 ON2170
+B
SUPPLY REEL SENSOR
IR DATA
IC6701 (μPC1490HA)
SHAPER
TUNING
AMP
RECEIVER LED
fo = 36.7KHz
N.SW 5V
IR RECEIVER C.B.A.
IC 7503
(MN1280L)
RESET
DD CYLINDER MOTOR
N
S
M1
M2
M3
SEG 0
SEG 12
GRID 12
GRID 0
SEGMENT SIGNALS
GRID SIGNALS
TIMER C.B.A.
DOOR PANEL UNIT
P40
P41
P42
P43
P44
P50
P51
P56
P57
P60
P61
PAUSE/STILL
FF
REW
EJECT
STOP
INSERT
PLAY
AUDIO DUB
REC
AUDIO REC SP/LP
TIMER REC
CH (DN)
CH (UP)
TRACK(−)
TRACK(+)
NEXT
PROG/CHECK
CLOCK
OFF (−)
OFF (+)
ON (−)
ON (+)
PRESET/NORMAL
MEMORY
FG 1
(90° PHASE DIFFERENCE)
FG 2
DD CAPSTAN MOTOR

Next Page:
POWER/
TV DEMODULATER
& NICAM Section

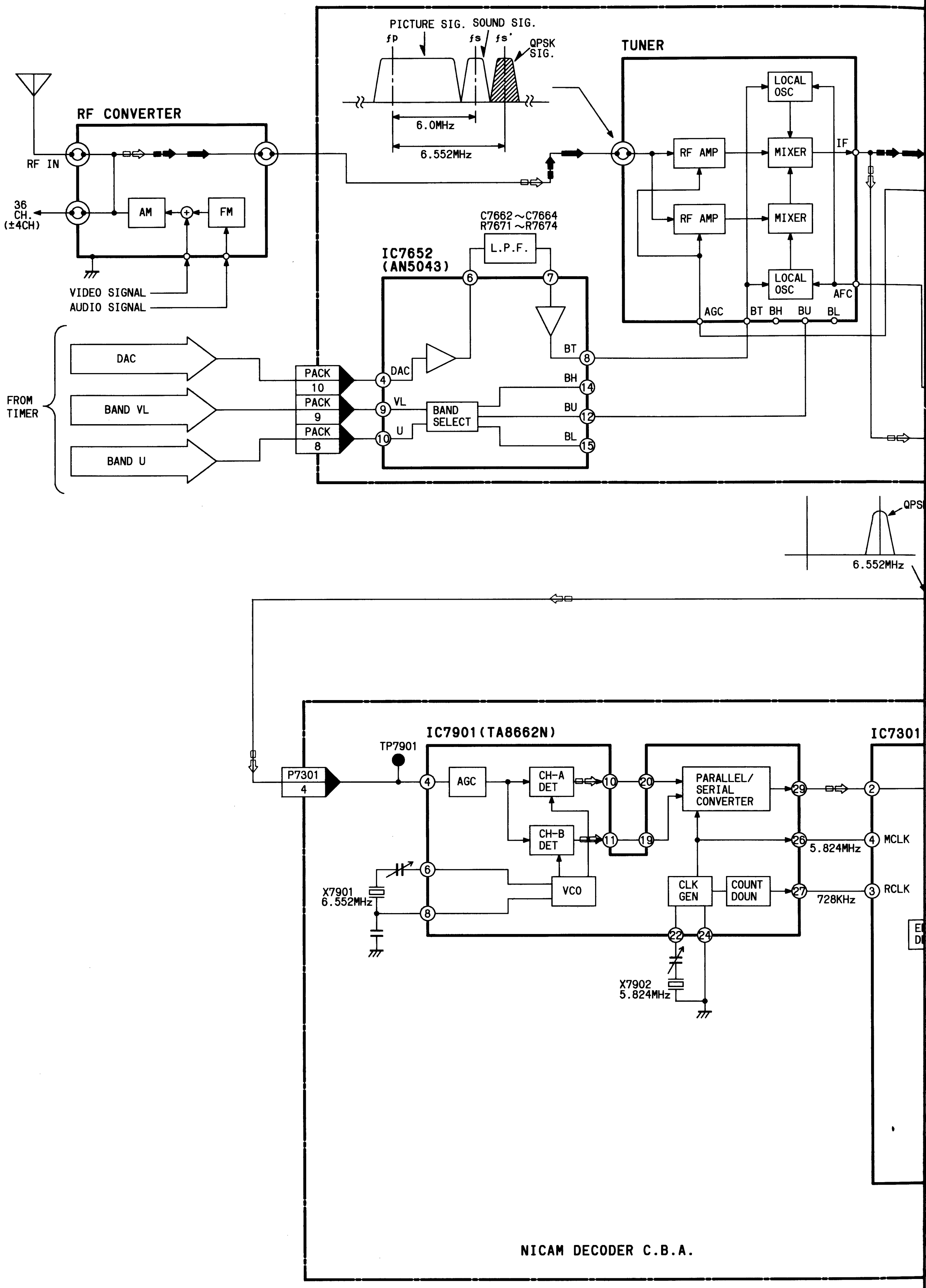
3-4. POWER BLOCK DIAGRAM


IC1102 (STK5391)
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
POWER TR
ERROR AMP
POWER TR
ERROR AMP
8
6
4
3
2
T1101
AC PLUG
F1001
L1101.L1102
LINE FILTER
D1102
FULL WAVE RECTIFIER
R1102
R1103
BLEEDER RESISTOR
R1125
P1
P2
C1109
STARTER
IC1101
(STRD6008X)
3
TR1 (SWITCHING TR)
2
TR2
(CONSTANT VOLTAGE CTL. TR)
1
TR3
5
R1129
4
Q1104
(OVERCURRENT CTL. TR)
(OVERVOLTAGE CTL. TR)
D1106
R1108
B1
B2
SMOOTHING AND RECTIFICATION
Q1101
IC1103
(SE013E)
1
2
3
R1110
C1115
R1111
C1136
D1108
C1118
D1109
C1119
Q1102
REG.
D1110
C1121
D1111
C1122
D1112
C1127
P1101 1
UN
P1101 2
NO
P1101 11
UN
P1101 8
RE
P1101 12
HE
P1101 13
HE
P1101 7
NO
P1101 5
RE


IC1102 (STK5391)
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
POWER TR
ERROR AMP
POWER TR
ERROR AMP
8
6
4
3
2
D1108
C1118
D1109
Q1102
REG.
C1119
D1110
C1121
D1111
C1122
D1112
C1127
P1101 1
UNREG 45V
P1101 2
NON SW 12V
P1101 11
UNREG -29V
P1101 8
REG 5V
P1101 12
HEATER(+)
P1101 13
HEATER(-)
P1101 7
NON SW 5.3V
P1101 5
REG 12.3V
IC1103
(SE013E)
1
2
3

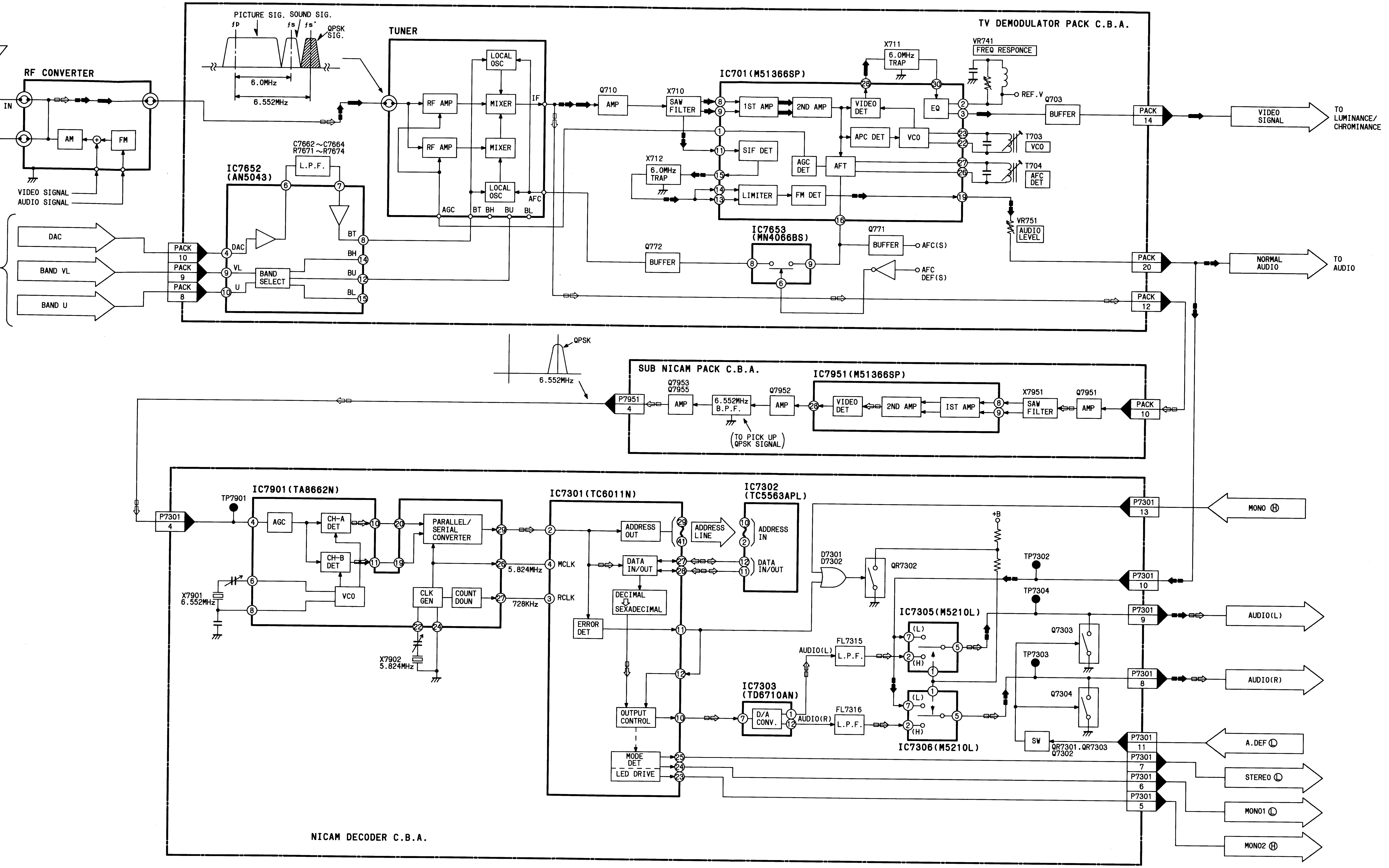
3-5. TV DEMODULATOR & NICAM DECODER BLOCK DIAGRAM

VIDEO SIGNAL PATH   NORMAL

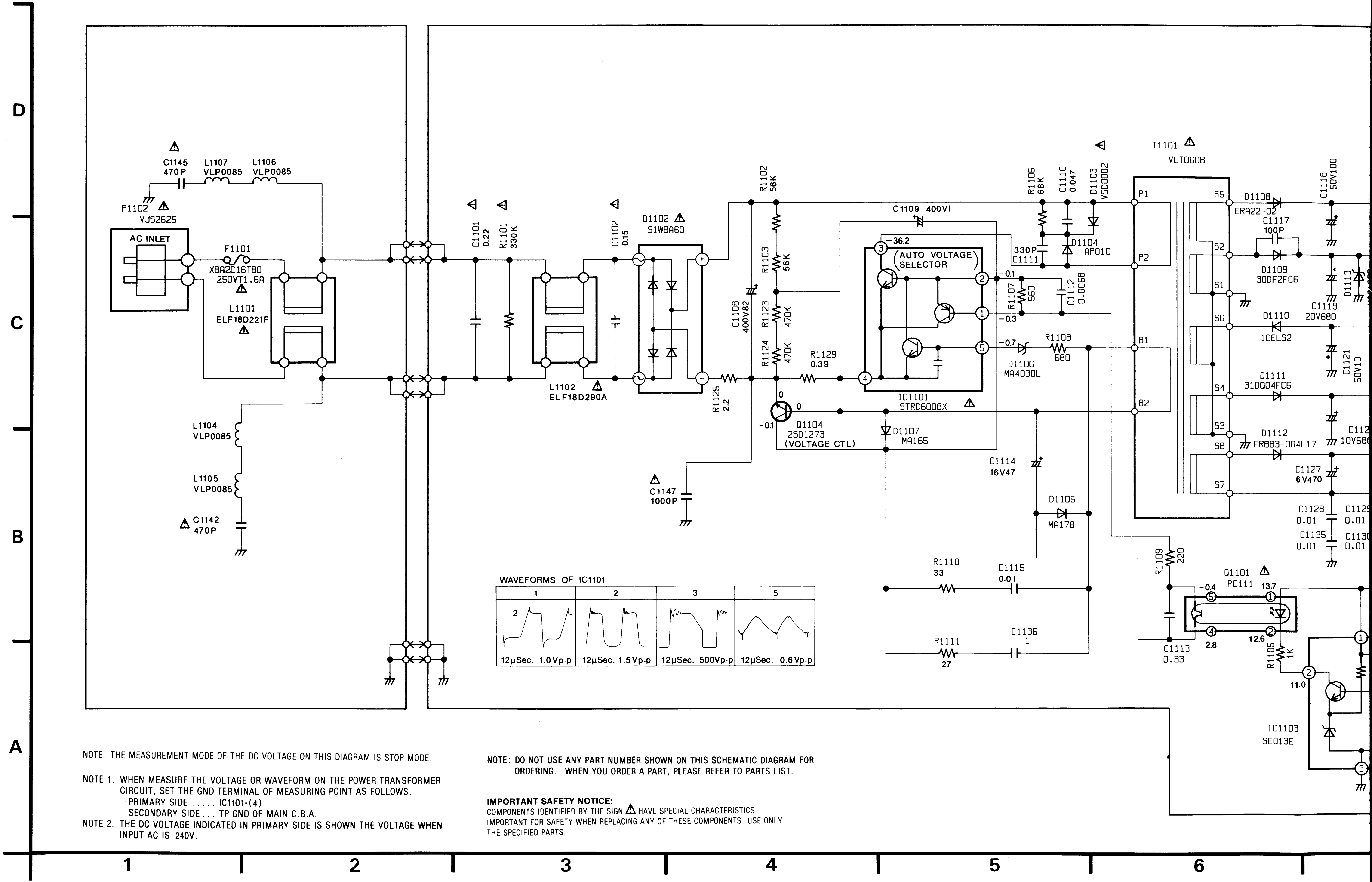

PICTURE SIG.
SOUND SIG.
fp
fs
fs'
QPSK SIG.
6.0MHz
6.552MHz
RF CONVERTER
RF IN
36 CH. (±4CH)
AM
FM
VIDEO SIGNAL
AUDIO SIGNAL
TUNER
RF AMP
MIXER
LOCAL OSC
RF AMP
MIXER
LOCAL OSC
IF
AFC
AGC
BT
BH
BU
BL
C7662~C7664
R7671~R7674
L.P.F.
IC7652
(AN5043)
DAC
VL
U
BAND SELECT
BT
BH
BU
BL
FROM TIMER
DAC
BAND VL
BAND U
PACK 10
PACK 9
PACK 8
QPSK
6.552MHz
IC7901 (TA8662N)
TP7901
P7301 4
AGC
CH-A DET
CH-B DET
VCO
PARALLEL/SERIAL CONVERTER
CLK GEN
COUNT DOUN
X7901 6.552MHz
X7902 5.824MHz
5.824MHz
728KHz
IC7301
MCLK
RCLK
NICAM DECODER C.B.A.

TV DEMODULATOR & NICAM DECODER BLOCK DIAGRAM

◀ VIDEO SIGNAL PATH ◀■ NORMAL AUDIO SIGNAL PATH ⇦ NICAM AUDIO SIGNAL PATH


TV DEMODULATOR PACK C.B.A.
PICTURE SIG.
SOUND SIG.
fp
fs
fs'
QPSK SIG.
6.0MHz
6.552MHz
RF CONVERTER
IN
AM
FM
VIDEO SIGNAL
AUDIO SIGNAL
TUNER
RF AMP
RF AMP
LOCAL OSC
MIXER
MIXER
LOCAL OSC
IF
AFC
AGC
BT BH BU BL
C7662～C7664
R7671～R7674
L.P.F.
IC7652 (AN5043)
DAC
VL
U
BAND SELECT
BT
BH
BU
BL
DAC
BAND VL
BAND U
PACK 10
PACK 9
PACK 8
Q710
AMP
X710
SAW FILTER
IC701(M51366SP)
1ST AMP
2ND AMP
VIDEO DET
EQ
X711
6.0MHz TRAP
VR741
FREQ RESPONCE
REF.V
Q703
BUFFER
APC DET
VCO
T703
VCO
SIF DET
AGC DET
AFT
T704
AFC DET
X712
6.0MHz TRAP
LIMITER
FM DET
VR751
AUDIO LEVEL
IC7653 (MN4066BS)
Q771
BUFFER
AFC(S)
AFC DEF(S)
Q772
BUFFER
PACK 14
PACK 20
PACK 12
VIDEO SIGNAL
TO LUMINANCE/ CHROMINANCE
NORMAL AUDIO
TO AUDIO
QPSK
6.552MHz
SUB NICAM PACK C.B.A.
IC7951(M51366SP)
P7951 4
Q7953
Q7955
AMP
6.552MHz B.P.F.
(TO PICK UP QPSK SIGNAL)
Q7952
AMP
VIDEO DET
2ND AMP
IST AMP
X7951
SAW FILTER
Q7951
AMP
PACK 10
NICAM DECODER C.B.A.
TP7901
P7301 4
IC7901(TA8662N)
AGC
CH-A DET
CH-B DET
VCO
PARALLEL/ SERIAL CONVERTER
CLK GEN
COUNT DOUN
X7901 6.552MHz
X7902 5.824MHz
5.824MHz
728KHz
IC7301(TC6011N)
MCLK
RCLK
ADDRESS OUT
DATA IN/OUT
DECIMAL ⇩ SEXADECIMAL
ERROR DET
OUTPUT CONTROL
MODE DET
LED DRIVE
ADDRESS LINE
IC7302 (TC5563APL)
ADDRESS IN
DATA IN/OUT
D7301 D7302
QR7302
+B
TP7302
TP7304
TP7303
IC7305(M5210L)
IC7306(M5210L)
(L)
(H)
AUDIO(L)
AUDIO(R)
FL7315
FL7316
L.P.F.
L.P.F.
IC7303 (TD6710AN)
D/A CONV.
Q7303
Q7304
SW
QR7301, QR7303 Q7302
P7301 13
P7301 10
P7301 9
P7301 8
P7301 11
P7301 7
P7301 6
P7301 5
MONO Ⓗ
AUDIO(L)
AUDIO(R)
A.DEF Ⓛ
STEREO Ⓛ
MONO1 Ⓛ
MONO2 Ⓗ

3-6. POWER SCHEMATIC DIAGRAM


D
C
B
A
1
2
3
4
5
6
C1145
470P
L1107
VLP0085
L1106
VLP0085
P1102
VJS2625
AC INLET
F1101
XBA2C16TB0
250VT1.6A
L1101
ELF18D221F
L1104
VLP0085
L1105
VLP0085
C1142
470P
C1101
0.22
R1101
330K
C1102
0.15
D1102
S1WBA60
L1102
ELF18D290A
R1125
2.2
C1108
400V82
R1102
56K
R1103
56K
R1123
470K
R1124
470K
R1129
0.39
C1147
1000P
Q1104
2SD1273
(VOLTAGE CTL)
C1109 400VI
-36.2
AUTO VOLTAGE
SELECTOR
IC1101
STRD6008X
-0.1
-0.3
-0.7
D1107
MA165
R1106
68K
C1110
0.047
D1103
VSD0002
330P
C1111
D1104
AP01C
R1107
560
C1112
0.0068
R1108
680
D1106
MA4030L
C1114
16V47
D1105
MA178
R1110
33
C1115
0.01
R1111
27
C1136
1
T1101
VLT0608
P1
P2
B1
B2
S5
S2
S1
S6
S4
S3
S8
S7
D1108
ERA22-02
C1117
100P
D1109
30DF2FC6
C1118
50V100
C1119
20V680
D1113
D1110
10ELS2
C1121
50V10
D1111
31DQ04FC6
D1112
ERB83-004L17
C112
10V680
C1127
6V470
C1128
0.01
C1129
0.01
C1135
0.01
C1130
0.01
R1109
220
Q1101
PC111
13.7
-0.4
-2.8
12.6
C1113
0.33
R1105
1K
11.0
IC1103
SE013E
WAVEFORMS OF IC1101
12μSec. 1.0Vp-p
12μSec. 1.5Vp-p
12μSec. 500Vp-p
12μSec. 0.6Vp-p

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

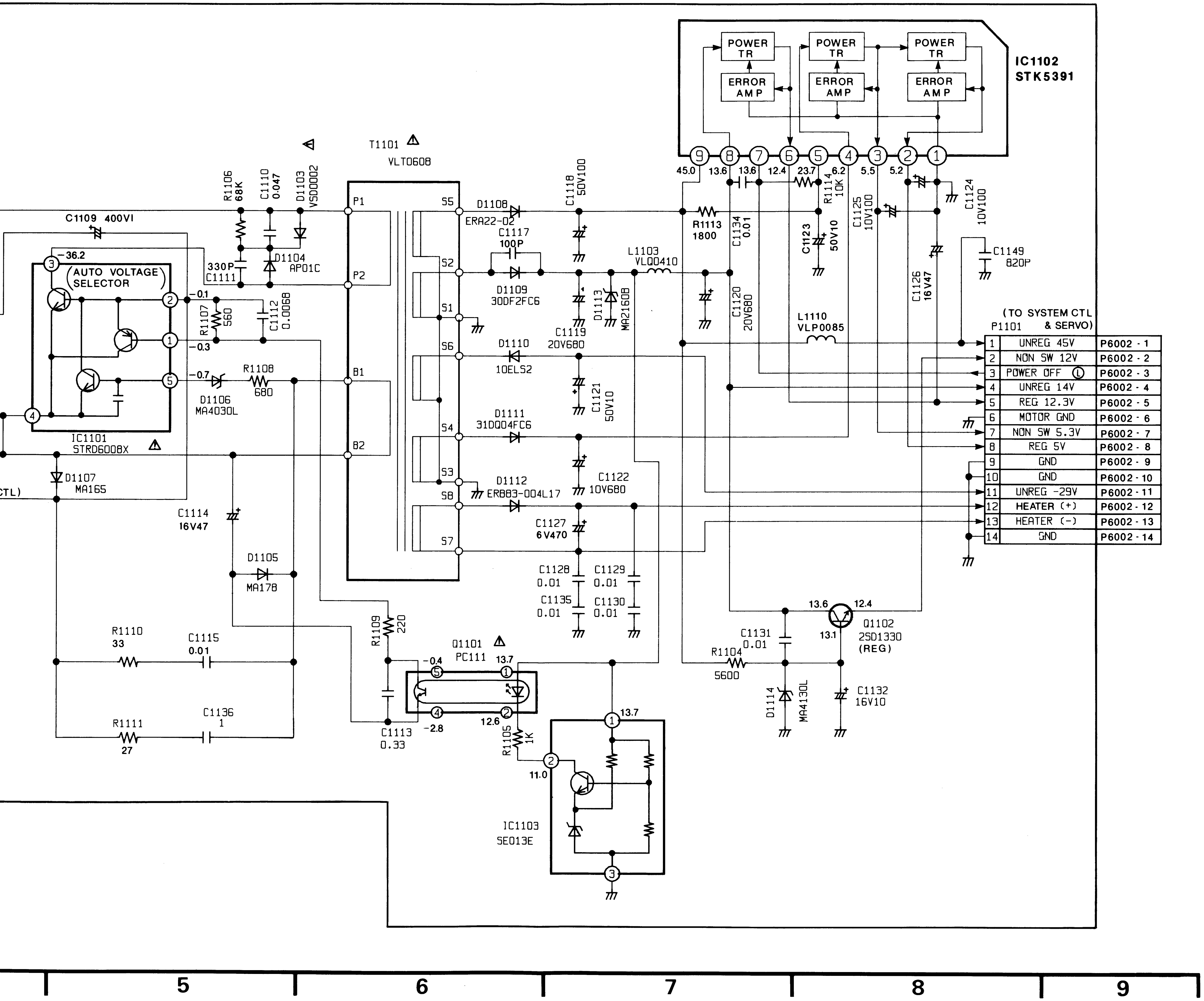
NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
·PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

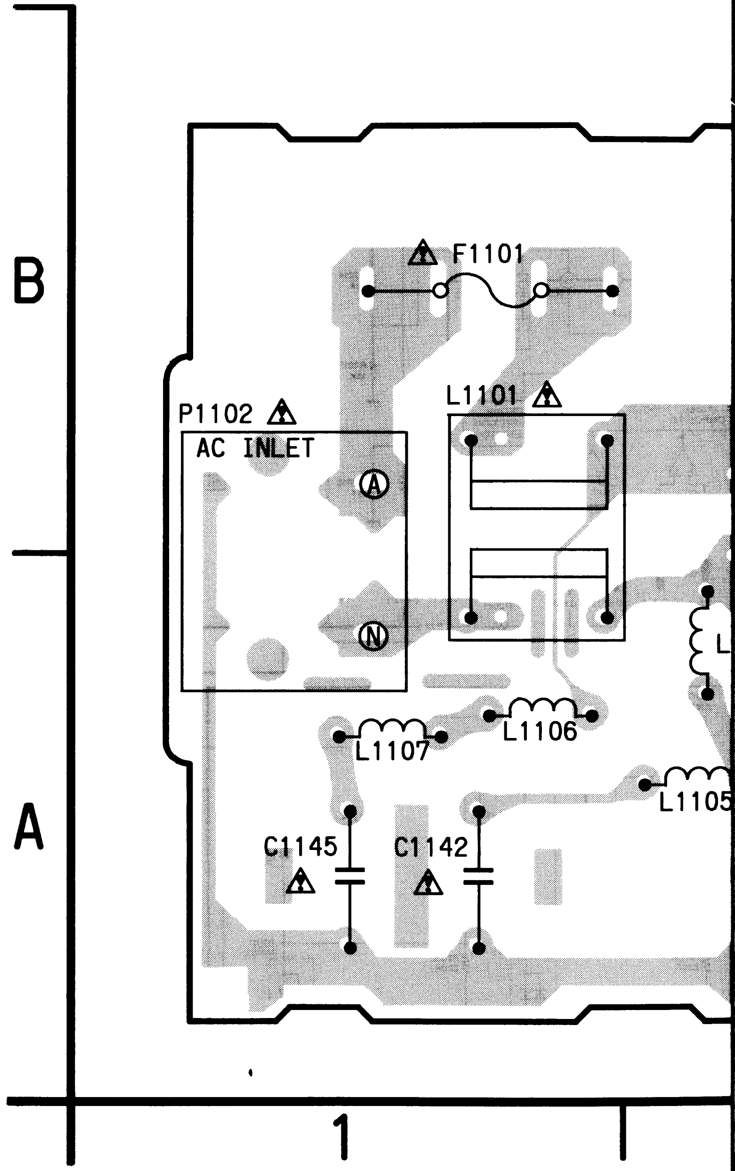
NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

3-7. POWER C.B.A. (VEP01420A)

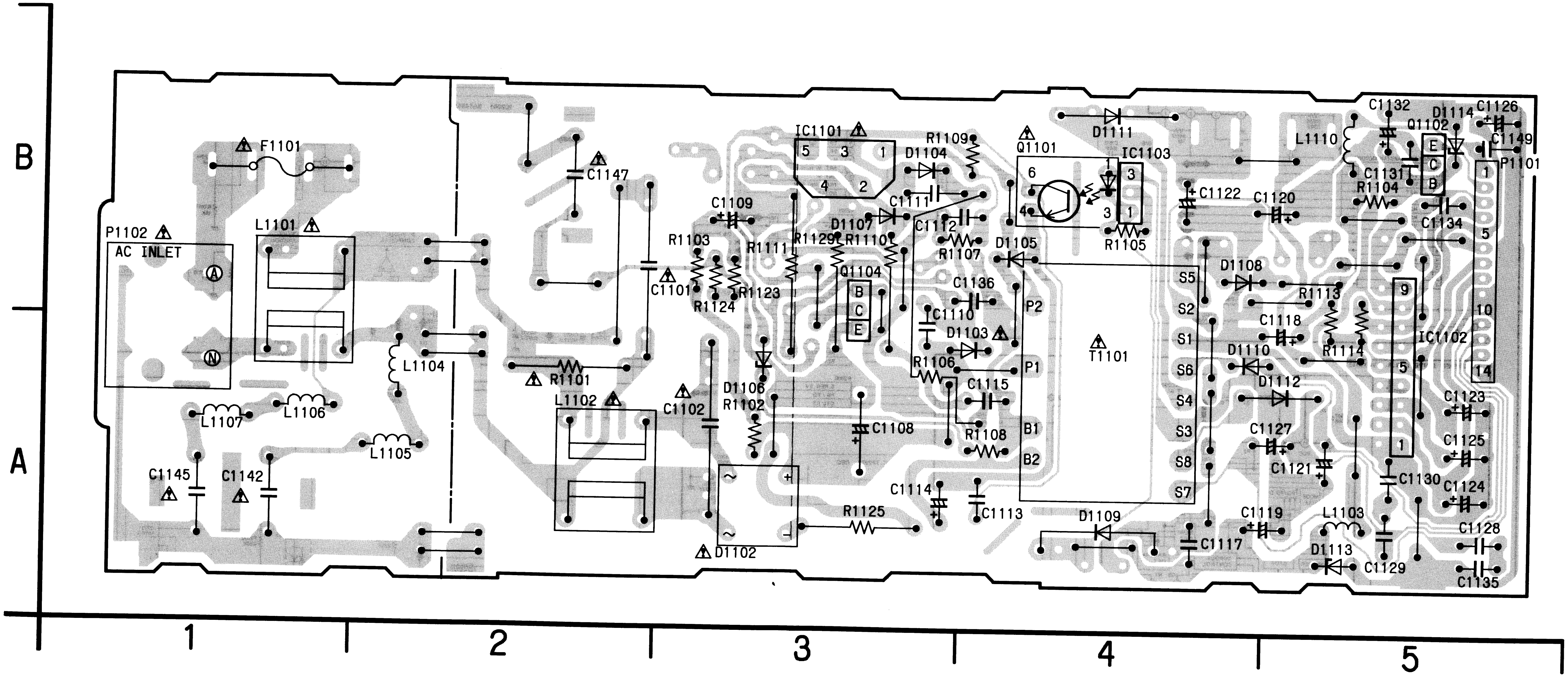

IC1102
STK5391
POWER TR
ERROR AMP
T1101
VLT0608
P1 P2 B1 B2 S5 S2 S1 S6 S4 S3 S8 S7
IC1101
STRD6008X
AUTO VOLTAGE SELECTOR
C1109 400V1
R1106 68K
C1110 0.047
D1103 VSD0002
330P C1111
D1104 AP01C
R1107 560
C1112 0.0068
R1108 680
D1106 MA4030L
D1107 MA165
C1114 16V47
D1105 MA178
R1110 33
C1115 0.01
R1111 27
C1136 1
R1109 220
C1113 0.33
Q1101 PC111
R1105 1K
IC1103 SE013E
D1108 ERA22-02
C1117 100P
D1109 30DF2FC6
C1118 50V100
C1119 20V680
D1113 MA2160B
L1103 VLQ0410
D1110 10ELS2
C1121 50V10
D1111 31DQ04FC6
D1112 ERB83-004L17
C1122 10V680
C1127 6V470
C1128 0.01
C1129 0.01
C1135 0.01
C1130 0.01
R1113 1800
C1134 0.01
C1120 20V680
C1123 50V10
R1114 10K
C1125 10V100
C1126 16V47
C1124 10V100
C1149 820P
L1110 VLP0085
Q1102 2SD1330 (REG)
C1131 0.01
R1104 5600
D1114 MA4130L
C1132 16V10
(TO SYSTEM CTL & SERVO)
P1101
1 UNREG 45V P6002 - 1
2 NON SW 12V P6002 - 2
3 POWER OFF Ⓛ P6002 - 3
4 UNREG 14V P6002 - 4
5 REG 12.3V P6002 - 5
6 MOTOR GND P6002 - 6
7 NON SW 5.3V P6002 - 7
8 REG 5V P6002 - 8
9 GND P6002 - 9
10 GND P6002 - 10
11 UNREG -29V P6002 - 11
12 HEATER (+) P6002 - 12
13 HEATER (-) P6002 - 13
14 GND P6002 - 14
45.0 13.6 13.6 12.4 23.7 6.2 5.5 5.2
-36.2 -0.1 -0.3 -0.7 -0.4 -2.8 13.7 12.6 11.0 13.6 12.4 13.1
CTL)
5 6 7 8 9


B
A
F1101
P1102
AC INLET
Ⓐ
Ⓝ
L1101
L1107
L1106
L1105
C1145
C1142
1

3-7. POWER C.B.A. (VEP01420A)

POWER C.B.A.	
Transisor	
Q1101	B-4
Q1102	B-5
Q1104	B-3
Integrated Circuit	
IC1101	B-3
IC1102	A-5
IC1103	B-4
Connector	
P1101	B-5
P1102	B-1

ADDRESS INFORMATION


B
A
1
2
3
4
5
F1101
P1102
AC INLET
A
N
L1101
L1104
L1107
L1106
L1105
C1145
C1142
C1147
R1101
L1102
C1101
C1102
D1102
R1103
R1124
R1123
R1111
C1109
IC1101
5
3
1
4
2
R1109
D1104
C1111
D1107
R1129
R1110
Q1104
B
C
E
C1112
R1107
D1106
R1102
C1108
C1110
D1103
R1106
C1115
R1108
C1114
C1113
R1125
C1136
Q1101
D1111
IC1103
D1105
R1105
P2
P1
B1
B2
T1101
S5
S2
S1
S6
S4
S3
S8
S7
D1109
C1122
C1117
C1120
D1108
R1113
C1118
D1110
R1114
D1112
C1127
C1121
C1119
L1103
D1113
C1129
L1110
C1132
C1131
R1104
D1114
Q1102
E
C
B
C1126
C1149
P1101
C1134
IC1102
9
5
1
10
14
C1123
C1125
C1124
C1130
C1128
C1135

Next Page:
SYSTEM CONTROL & SERVO Section

3-8. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

CAPSTAN SERVO SPEED LOOP

CAPSTAN SERVO PHASE LOOP

CYLINDER SERVO SPEED LOOP

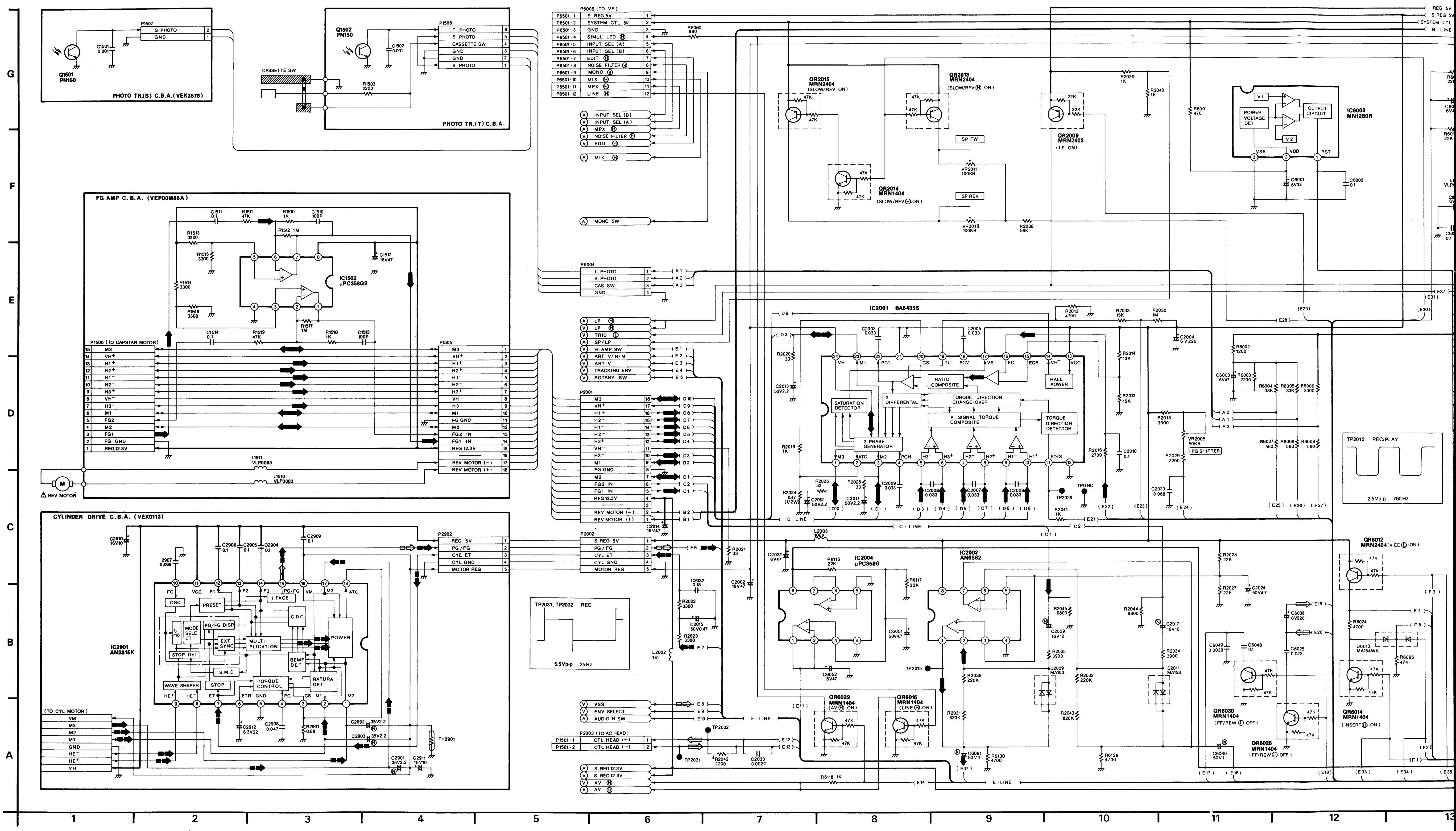
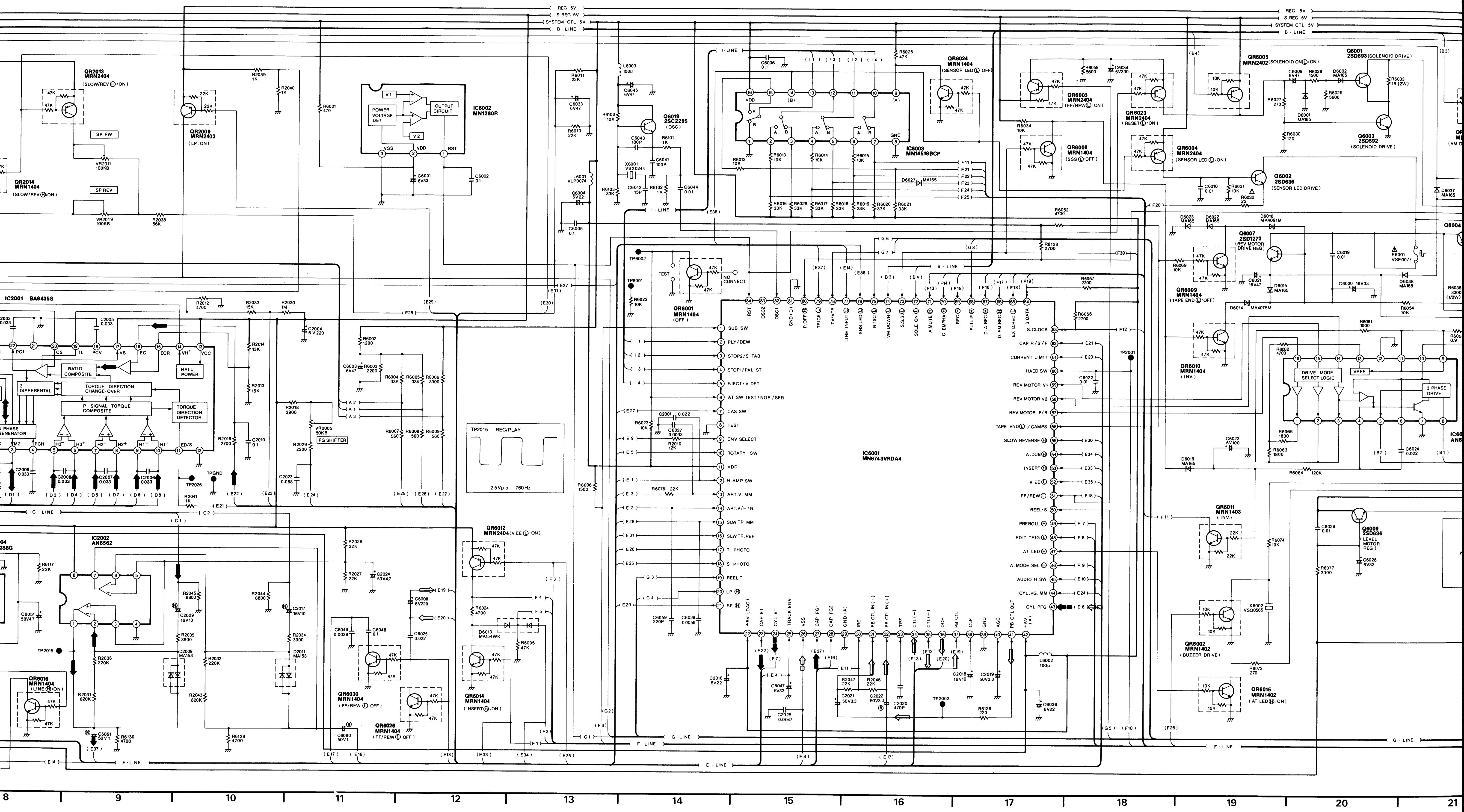
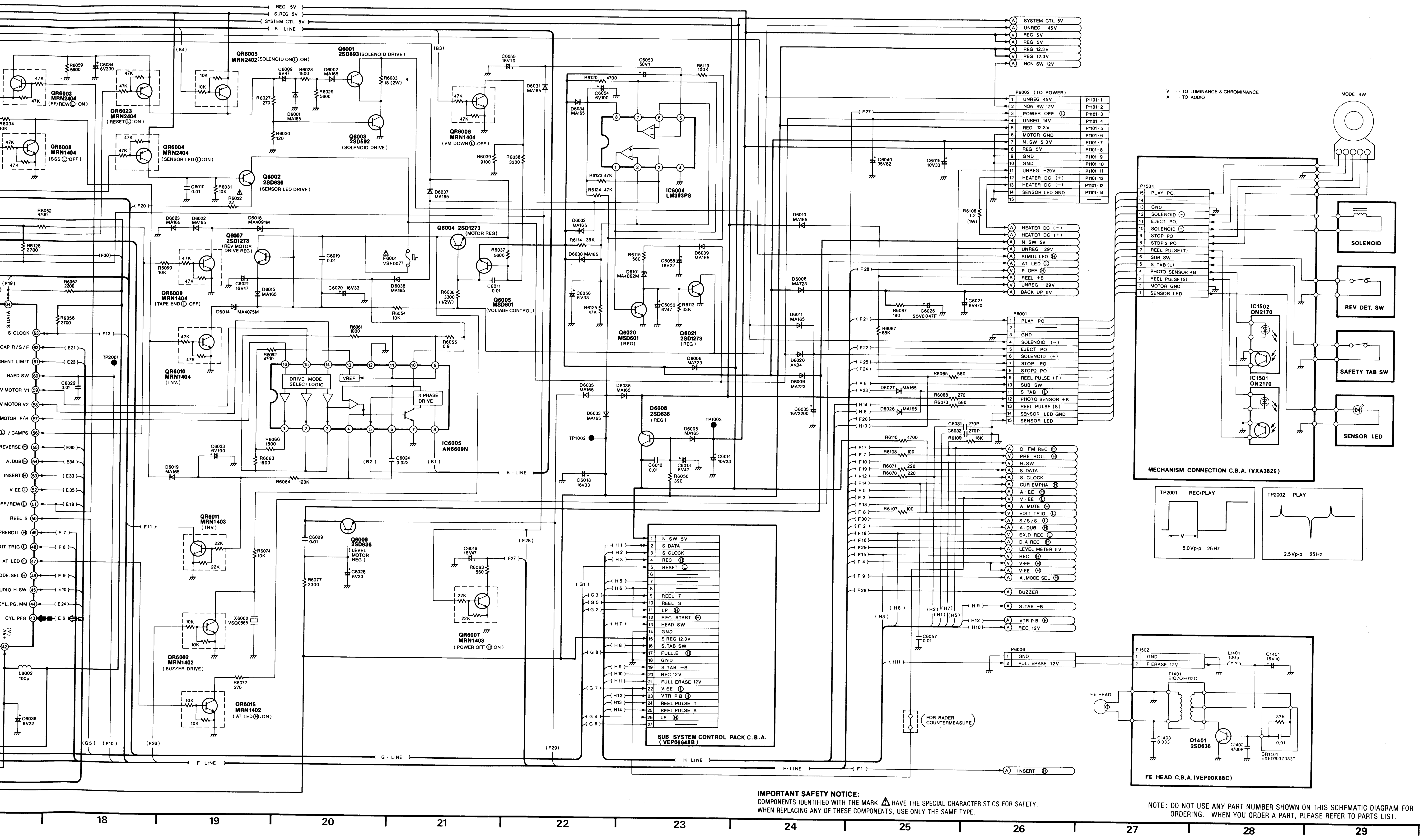


PHOTO TR.(S) C.B.A. (VEK3578)
Q1501 PN150
P1507
S. PHOTO
GND
C1501 0.001
CASSETTE SW
Q1502 PN150
C1502 0.001
R1503 2200
P1508
T. PHOTO
S. PHOTO
CASSETTE SW
GND
S. PHOTO
PHOTO TR.(T) C.B.A.
FG AMP C.B.A. (VEP00M86A)
IC1502 μPC358G2
P1506 (TO CAPSTAN MOTOR)
P1505
M3
VH+
H1+
H2+
H1−
H2−
H3+
VH−
H3−
M1
FG2
M2
FG1
FG GND
REG 12.3V
REV MOTOR (−)
REV MOTOR (+)
L1511 VLP0083
L1510 VLP0083
REV MOTOR
CYLINDER DRIVE C.B.A. (VEX0113)
IC2901 AN3815K
OSC
PRESET
I. FACE
C.D.C.
MODE SELECT
PG/FG DISP
EXT. SYNC
MULTI-PLICATION
POWER
STOP DET
BEMF DET
S.M.D
WAVE SHAPER
STOP
TORQUE CONTROL
RATURA DET.
TH2901
(TO CYL MOTOR)
VM
M3
M2
M1
GND
HE−
HE+
VH
P2902
REG 5V
PG/FG
CYL ET
CYL GND
MOTOR REG
P6005 (TO VR)
S. REG 5V
SYSTEM CTL 5V
GND
SIMUL LED Ⓗ
INPUT SEL (A)
INPUT SEL (B)
EDIT Ⓗ
NOISE FILTER Ⓗ
MONO Ⓗ
MIX Ⓗ
MPX Ⓗ
LINE Ⓗ
R6060 680
MONO SW
P6004
T. PHOTO
S. PHOTO
CAS SW
GND
LP Ⓗ
LP Ⓗ
TRIC Ⓛ
SP/LP
H. AMP SW
ART V/H/N
ART V
TRACKING ENV
ROTARY SW
P2001
P2002
S. REG 5V
PG/FG
CYL ET
CYL GND
MOTOR REG
TP2031, TP2032 REC
5.5Vp-p 25Hz
VSS
ENV SELECT
AUDIO H.SW
P2003 (TO AC HEAD)
CTL HEAD (+)
CTL HEAD (−)
S. REG 12.3V
S. REG 12.3V
AV Ⓗ
AV Ⓗ
QR2015 MRN2404 (SLOW/REV Ⓗ : ON)
QR2013 MRN2404 (SLOW/REV Ⓗ : ON)
QR2014 MRN1404 (SLOW/REV Ⓗ ON)
QR2009 MRN2403 (LP : ON)
SP FW
SP REV
VR2011 100KB
VR2019 100KB
R2038 56K
IC6002 MN1280R
POWER VOLTAGE DET
OUTPUT CIRCUIT
IC2001 BA6435S
SATURATION DETECTOR
RATIO COMPOSITE
3 DIFFERENTIAL
TORQUE DIRECTION CHANGE OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
3 PHASE GENERATOR
VR2005 50KB
PG SHIFTER
TP2015 REC/PLAY
2.5Vp-p 760Hz
TPGND
TP2026
D-LINE
C-LINE
E-LINE
IC2004 μPC358G
IC2002 AN6562
L2003 100μ
L2002 1m
TP2015
TP2031
TP2032
QR6029 MRN1404 (AV Ⓗ : ON)
QR6016 MRN1404 (LINE Ⓗ : ON)
D2009 MA153
D2011 MA153
QR6012 MRN2404 (V.EE Ⓛ : ON)
QR6030 MRN1404 (FF/REW Ⓛ : OFF)
QR6026 MRN1404 (FF/REW Ⓛ : OFF)
QR6014 MRN1404 (INSERT Ⓗ : ON)
D6013 MA154WK
REG 5V
S.REG 5V
SYSTEM CTL
B-LINE
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13

CAPSTAN SERVO PHASE LOOP ◀■ CYLINDER SERVO SPEED LOOP ◁□ CYLINDER SERVO PHASE LOOP


REG 5V
S.REG 5V
SYSTEM CTL 5V
B-LINE
I-LINE
QR2013 MRN2404 (SLOW/REV Ⓗ:ON)
QR2009 MRN2403 (LP:ON)
QR2014 MRN1404 (SLOW/REV Ⓗ:ON)
SP FW
SP REV
VR2011 100KB
VR2019 100KB
IC6002 MN1280R
POWER VOLTAGE DET
OUTPUT CIRCUIT
Q6019 2SC2295 (OSC)
X6001 VSX0244
L6001 VLP0074
IC6003 MN14519BCP
QR6024 MRN1404 (SENSOR LED Ⓛ:OFF)
QR6003 MRN2404 (FF/REW Ⓛ:ON)
QR6008 MRN1404 (SSS Ⓛ:OFF)
QR6023 MRN2404 (RESET Ⓛ:ON)
QR6004 MRN2404 (SENSOR LED Ⓛ:ON)
QR6005 MRN2402 (SOLENOID ON Ⓛ:ON)
Q6001 2SD893 (SOLENOID DRIVE)
Q6003 2SD592 (SOLENOID DRIVE)
Q6002 2SD636 (SENSOR LED DRIVE)
Q6007 2SD1273 (REV MOTOR DRIVE REG)
F6001 VSF0077
QR6009 MRN1404 (TAPE END Ⓛ:OFF)
QR6010 MRN1404 (INV.)
DRIVE MODE SELECT LOGIC
VREF
3 PHASE DRIVE
IC2001 BA6435S
RATIO COMPOSITE
3 DIFFERENTAL
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
3 PHASE GENERATOR
VR2005 50KB
PG SHIFTER
TP2015 REC/PLAY
2.5Vp-p 760Hz
QR6001 MRN1404 (OFF)
TEST
NO CONNECT
IC6001 MN6743VRDA4
RST OSC2 OSC1 GND(D) P.OFF Ⓗ TRICK Ⓛ TV/VTR LINE INPUT Ⓛ SNS LED Ⓛ NTSC Ⓛ VM DOWN Ⓛ S.S.S Ⓛ SOLE ON Ⓛ A.MUTE Ⓗ C.EMPHA Ⓗ REC Ⓗ FULL E Ⓗ D.A.REC Ⓗ D.FM.REC Ⓗ EX.D.REC Ⓛ S.DATA
SUB SW
PLY/DEW
STOP2/S·TAB
STOP1/PAL·ST
EJECT/V.DET
AT SW TEST/NOR/SER
CAS SW
TEST
ENV SELECT
ROTARY SW
VDD
H.AMP SW
ART.V.MM
ART.V/H/N
SLW TR.MM
SLW TR.REF
T·PHOTO
S·PHOTO
REEL T
LP Ⓗ
SP Ⓗ
S.CLOCK
CAP R/S/F
CURRENT LIMIT
HAED SW
REV MOTOR V1
REV MOTOR V2
REV MOTOR F/R
TAPE END Ⓛ / CAMPS
SLOW REVERSE Ⓗ
A.DUB Ⓗ
INSERT Ⓗ
V EE Ⓛ
FF/REW Ⓛ
REEL·S
PREROLL Ⓗ
EDIT TRIG Ⓛ
AT LED Ⓗ
A.MODE SEL Ⓗ
AUDIO H.SW
CYL.PG.MM
CYL PFG
+5V(DAC) CAP ET CYL ET TRACK ENV VSS CAP FG1 CAP FG2 GND(A) IRE PB CTL IN(−) PB CTL IN(+) TPZ CTL(−) CTL(+) OCH PB CTL CLP GND AGC PB CTL OUT +5V(A)
IC2002 AN6562
QR6016 MRN1404 (LINE Ⓗ:ON)
QR6012 MRN2404 (V.EE Ⓛ:ON)
QR6030 MRN1404 (FF/REW Ⓛ:OFF)
QR6026 MRN1404 (FF/REW Ⓛ:OFF)
QR6014 MRN1404 (INSERT Ⓗ:ON)
D6013 MA154WK
QR6011 MRN1403 (INV.)
Q6009 2SD636 (LEVEL MOTOR REG)
X6002 VSQ0565
QR6002 MRN1402 (BUZZER DRIVE)
QR6015 MRN1402 (AT LED Ⓗ:ON)
C-LINE
E-LINE
F-LINE
G-LINE
8 9 10 11 12 13 14 15 16 17 18 19 20 21


REG 5V
S.REG 5V
SYSTEM CTL 5V
B · LINE
(B4)
(B3)
QR6003
MRN2404
(FF/REW Ⓛ : ON)
R6059
5600
C6034
6V330
QR6023
MRN2404
(RESET Ⓛ : ON)
QR6005
MRN2402 (SOLENOID ON Ⓛ : ON)
Q6001
2SD893 (SOLENOID DRIVE)
C6009
6V47
R6028
1500
D6002
MA165
R6033
18 (2W)
R6029
5600
R6027
270
D6001
MA165
R6030
120
Q6003
2SD592
(SOLENOID DRIVE)
R6034
10K
QR6008
MRN1404
(SSS Ⓛ OFF)
QR6004
MRN2404
(SENSOR LED Ⓛ : ON)
Q6002
2SD636
(SENSOR LED DRIVE)
C6010
0.01
R6031
10K
R6032
22
R6052
4700
R6128
2700
(F30)
(F20)
(F19)
R6057
2200
R6056
2700
64
S.DATA
S.CLOCK 63
CAP R/S/F 62
RENT LIMIT 61
HAED SW 60
V MOTOR V1 59
V MOTOR V2 58
MOTOR F/R 57
Ⓛ / CAMPS 56
REVERSE Ⓗ 55
A.DUB Ⓗ 54
INSERT Ⓗ 53
V EE Ⓛ 52
FF/REW Ⓛ 51
REEL · S 50
PREROLL Ⓗ 49
DIT TRIG Ⓛ 48
AT LED Ⓗ 47
ODE.SEL Ⓗ 46
UDIO H.SW 45
CYL.PG.MM 44
CYL PFG 43
+5V (A)
42
(E21)
(E23)
(E30)
(E34)
(E33)
(E35)
(E18)
(F7)
(F8)
(F9)
(E10)
(E24)
(E6)
(F12)
TP2001
C6022
0.01
L6002
100µ
C6036
6V22
(G5)
(F10)
(F26)
(F11)
F · LINE
D6023
MA165
D6022
MA165
D6018
MA4091M
Q6007
2SD1273
(REV MOTOR DRIVE REG)
QR6009
MRN1404
(TAPE END Ⓛ : OFF)
R6069
10K
C6021
16V47
D6015
MA165
D6014
MA4075M
QR6010
MRN1404
(INV.)
R6062
4700
R6061
1000
R6055
0.9
C6019
0.01
C6020 16V33
R6054
10K
D6038
MA165
F6001
VSF0077
D6037
MA165
Q6004 2SD1273
(MOTOR REG)
R6036
3300
(1/2W)
R6037
5600
C6011
0.01
Q6005
MSD601
(VOLTAGE CONTROL)
DRIVE MODE SELECT LOGIC
VREF
3 PHASE DRIVE
IC6005
AN6609N
R6066
1800
R6063
1800
C6023
6V100
D6019
MA165
R6064 120K
(B2)
C6024
0.022
(B1)
B · LINE
QR6011
MRN1403
(INV.)
22K
R6074
10K
QR6002
MRN1402
(BUZZER DRIVE)
X6002
VSQ0565
R6072
270
QR6015
MRN1402
(AT LED Ⓗ : ON)
C6029
0.01
Q6009
2SD636
(LEVEL MOTOR REG)
C6028
6V33
R6077
3300
G · LINE
C6016
16V47
R6063
560
(F27)
(F28)
QR6006
MRN1404
(VM DOWN Ⓛ : OFF)
C6055
16V10
D6031
MA165
R6039
9100
R6038
3300
QR6007
MRN1403
(POWER OFF Ⓗ : ON)
(F29)
C6053
50V1
R6119
100K
R6120 4700
C6054
6V100
D6034
MA165
R6123 47K
R6124 47K
IC6004
LM393PS
D6032
MA165
R6114 39K
D6030 MA165
R6115
560
D6101
MA4062M
C6058
16V22
D6039
MA165
C6056
6V33
R6125
47K
C6050
6V47
R6113
33K
Q6020
MSD601
(REG)
Q6021
2SD1273
(REG)
D6006
MA723
D6035
MA165
D6036
MA165
D6033
MA165
TP1002
Q6008
2SD638
(REG)
D6005
MA165
TP1003
C6014
10V33
C6012
0.01
C6013
6V47
R6050
390
C6018
16V33
(G1)
(G3)
(G5)
(G2)
(G8)
(G7)
(G4)
(G6)
(H1)
(H2)
(H3)
(H5)
(H6)
(H7)
(H8)
(H9)
(H10)
(H11)
(H12)
(H13)
(H14)
H · LINE
F · LINE
(F1)
1 N.SW 5V
2 S.DATA
3 S.CLOCK
4 REC Ⓗ
5 RESET Ⓛ
6
7
8
9 REEL T
10 REEL S
11 LP Ⓗ
12 REC START Ⓗ
13 HEAD SW
14 GND
15 S.REG 12.3V
16 S.TAB SW
17 FULL.E Ⓗ
18 GND
19 S.TAB +B
20 REC 12V
21 FULL ERASE 12V
22 V.EE Ⓛ
23 VTR P.B Ⓗ
24 REEL PULSE T
25 REEL PULSE S
26 LP Ⓗ
27
SUB SYSTEM CONTROL PACK C.B.A.
(VEP06648B)
D6010
MA165
D6008
MA723
D6011
MA165
D6020
AK04
D6009
MA723
C6035
16V2200
C6040
35V82
C6015
10V33
R6106
1.2
(1W)
R6087
180
C6026
5.5V0.047F
C6027
6V470
R6067
68K
(F27)
(F28)
(F21)
(F22)
(F25)
(F24)
(F6)
(F23)
(H14)
(H8)
(F20)
(H13)
D6027 MA165
D6026 MA165
R6065 560
R6068 270
R6073 560
C6031 270P
C6032 270P
R6109 18K
R6110 4700
R6108 100
R6071 220
R6070 220
R6107 100
(F17)
(F7)
(F10)
(F19)
(F12)
(F14)
(F5)
(F3)
(F13)
(F8)
(F30)
(F2)
(F18)
(F16)
(F29)
(F15)
(F4)
(F9)
(F26)
(H6)
(H3)
(H2)
(H1)
(H7)
(H5)
(H9)
(H12)
(H10)
(H11)
C6057
0.01
FOR RADER COUNTERMEASURE
Ⓐ SYSTEM CTL 5V
Ⓐ UNREG 45V
Ⓥ REG 5V
Ⓐ REG 5V
Ⓐ REG 12.3V
Ⓥ REG 12.3V
Ⓐ NON SW 12V
P6002 (TO POWER)
1 UNREG 45V P1101·1
2 NON SW 12V P1101·2
3 POWER OFF Ⓛ P1101·3
4 UNREG 14V P1101·4
5 REG 12.3V P1101·5
6 MOTOR GND P1101·6
7 N.SW 5.3V P1101·7
8 REG 5V P1101·8
9 GND P1101·9
10 GND P1101·10
11 UNREG −29V P1101·11
12 HEATER DC (+) P1101·12
13 HEATER DC (−) P1101·13
14 SENSOR LED GND P1101·14
15
Ⓐ HEATER DC (−)
Ⓐ HEATER DC (+)
Ⓐ N.SW 5V
Ⓐ UNREG −29V
Ⓐ SIMUL LED Ⓗ
Ⓐ AT LED Ⓛ
Ⓥ P.OFF Ⓗ
Ⓐ REEL +B
Ⓥ UNREG −29V
Ⓐ BACK UP 5V
P6001
1 PLAY PO
2
3 GND
4 SOLENOID (−)
5 EJECT PO
6 SOLENOID (+)
7 STOP PO
8 STOP2 PO
9 REEL PULSE (T)
10 SUB SW
11 S.TAB Ⓛ
12 PHOTO SENSOR +B
13 REEL PULSE (S)
14 SENSOR LED GND
15 SENSOR LED
Ⓐ D. FM REC Ⓗ
Ⓥ PRE ROLL Ⓗ
Ⓥ H.SW
Ⓐ S.DATA
Ⓐ S.CLOCK
Ⓐ CUR EMPHA Ⓗ
Ⓐ A·EE Ⓗ
Ⓥ V·EE Ⓛ
Ⓐ A.MUTE Ⓗ
Ⓥ EDIT TRIG Ⓛ
Ⓐ S/S/S Ⓛ
Ⓐ A.DUB Ⓗ
Ⓥ EX.D.REC Ⓛ
Ⓐ D.A.REC Ⓗ
Ⓐ LEVEL METER 5V
Ⓥ REC Ⓗ
Ⓥ V-EE Ⓗ
Ⓐ V-EE Ⓗ
Ⓐ A.MODE SEL Ⓗ
Ⓐ BUZZER
Ⓐ S.TAB +B
Ⓐ VTR P.B Ⓗ
Ⓐ REC 12V
P6006
1 GND
2 FULL ERASE 12V
Ⓐ INSERT Ⓗ
V···· TO LUMINANCE & CHROMINANCE
A···· TO AUDIO
MODE SW
P1504
15 PLAY PO.
14
13 GND
12 SOLENOID ⊖
11 EJECT PO.
10 SOLENOID ⊕
9 STOP PO.
8 STOP 2 PO.
7 REEL PULSE (T)
6 SUB SW
5 S. TAB (L)
4 PHOTO SENSOR +B
3 REEL PULSE (S)
2 MOTOR GND
1 SENSOR LED
SOLENOID
REV DET. SW
IC1502
ON2170
SAFETY TAB SW
IC1501
ON2170
SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3825)
TP2001 REC/PLAY
V
5.0Vp-p 25Hz
TP2002 PLAY
2.5Vp-p 25Hz
P1502
1 GND
2 F.ERASE 12V
L1401
100µ
C1401
16V10
T1401
EIQ7QF012Q
FE HEAD
C1403
0.033
Q1401
2SD636
C1402
4700P
33K
0.01
CR1401
EXED103Z333T
FE HEAD C.B.A. (VEP00K88C)
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IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

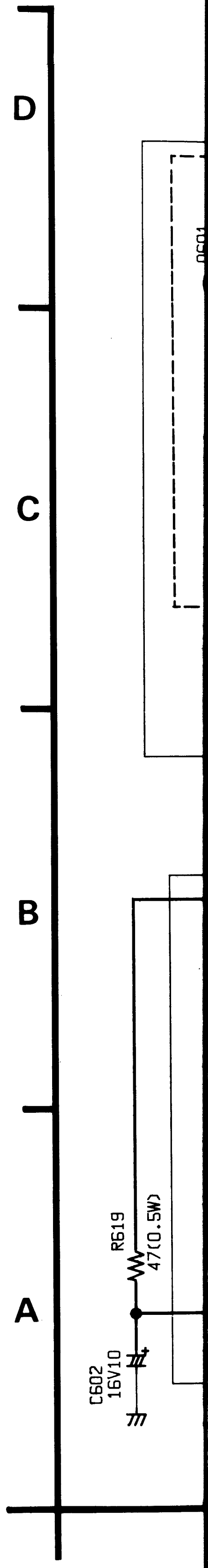
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC1510																			
MODE	1	2	3	4	5	6	7	8												
STOP	5.8	5.8	5.8	0	5.9	5.9	5.9	11.8												
PLAY	5.8	5.8	5.8	0	5.9	5.9	5.9	11.8												
FF	5.8	5.8	5.8	0	5.9	5.9	5.9	11.8												
REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.0	0	7.0	1.4	2.0	2.1	2.0	2.0	2.0	2.0	2.0	0	4.9	3.5	2.6	4.0	4.9	0	0.4	0
PLAY	2.5	0.1	2.5	1.4	2.1	2.1	2.1	2.1	2.1	2.1	0	0	4.9	3.6	2.6	2.3	4.9	0.6	0.4	0.1
FF	6.2	0.1	6.2	1.4	2.0	2.0	2.0	2.0	2.0	2.0	0	0	4.9	3.5	2.6	2.3	4.9	0.7	0.4	0.1
REF. NO.	IC2001																			
MODE	21	22	23	24																
STOP	0	0.5	7.0	13.5																
PLAY	0	0.6	2.5	8.9																
FF	0	0.7	6.2	13.3																
REF. NO.	IC2002										IC2004									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	2.9	3.0	3.0	0	3.0	3.0	2.9	4.9			2.5	2.5	2.5	0	0	0	0	4.9		
PLAY	3.0	3.0	3.0	0	3.0	3.0	3.0	4.9			2.5	2.5	2.5	0	0	0	0	4.9		
FF	3.0	3.0	3.0	0	3.0	3.0	3.0	4.9			2.5	2.5	2.5	0	0	0	0	4.9		
REF. NO.	IC2901																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.5	13.5	0	0.1	0	2.4	4.1	2.4	2.5	1.0	4.8	4.0	4.0	3.7	4.8	13.5	13.5	0		
PLAY	8.6	8.6	0.1	1.2	0	2.4	2.3	2.5	2.4	2.5	4.8	3.6	3.6	3.6	1.1	8.9	8.6	0.1		
FF	13.4	13.4	0	0.1	0	2.4	4.1	2.5	2.4	1.1	4.9	4.0	4.0	3.7	4.8	13.4	13.4	0		
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0.3	0.4	4.6	5.0	5.0	2.0	0	0	5.0	5.0	0	0	0	0	2.5	3.2	3.2	4.7	0
PLAY	0	0	0.4	5.0	5.0	5.0	2.0	0	4.5	5.0	5.0	0	0	0	0	2.5	3.2	3.2	4.7	0
FF	0	0.7	0.7	4.4	5.0	5.0	2.0	0	0	5.0	5.0	0	0	0	0	2.5	3.2	3.2	2.5	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	5.0	5.0	4.0	4.2	1.7	2.5	2.9	2.9	0	2.5	2.2	2.7	4.9	0	0	0	2.5	0	0	2.4
PLAY	5.0	5.0	2.3	2.4	2.9	2.5	3.0	3.0	0	2.5	2.8	2.5	4.9	0	0	0	2.5	2.5	0	2.8
FF	5.0	5.0	2.3	4.2	1.9	2.5	3.0	3.0	0	2.5	2.5	2.6	4.9	0	0	0	2.5	2.5	0	2.9
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.5	5.0	4.9	0	0	5.0	0	4.9	0	4.7	4.9	0	0	0	0	4.9	4.9	4.9	4.9	0
PLAY	2.5	5.0	1.4	2.9	3.8	4.9	4.9	4.9	0	4.7	4.9	4.9	0	0	0	4.9	4.9	4.9	4.9	4.5
FF	2.5	5.0	4.9	0	0	5.0	0	4.9	0	3.5	0	0	0	0	0	5.0	5.0	5.0	5.0	0
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	4.9	2.0	4.5	4.5	0	0	0	0	0	0	0	5.0	0	5.0	5.0	4.6	0	0	5.0	0
PLAY	4.9	0	4.5	4.2	0	0	0	0	0	0	0	4.9	4.9	0	4.9	4.6	0	0	4.9	0.1
FF	4.9	0	4.4	4.4	0	0	0	0	0	0	0	5.0	4.9	5.0	5.0	4.4	0	0	5.0	0.1
REF. NO.	IC6001										IC6002									
MODE	81	82	83	84							1	2	3							
STOP	0	—	—	4.8							4.8	4.9	0							
PLAY	0	—	—	4.8							4.8	4.9	0							
FF	0	2.4	2.4	5.0							5.0	5.0	0							
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	4.9	4.9	0.5	4.9	4.9	0	0.4	5.0	0.4	5.0	0.4	4.6	4.9	5.0				
PLAY	0	0	4.9	4.9	0	4.9	4.9	0	0.4	5.0	0.4	5.0	0	4.6	0	5.0				
FF	0	0	4.9	4.9	0.5	4.9	4.9	0	0.6	5.0	0.6	4.4	0.6	4.4	4.9	5.0				
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.7	2.9	4.8	0	4.8	3.0	0.7	4.8												
PLAY	0.7	2.9	4.8	0	4.8	2.9	0.7	4.8												
FF	0.7	2.9	4.8	0	4.8	2.9	0.7	4.8												
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	6.7	7.0	7.0	0.6	5.0	5.3	0	5.0	7.1	7.1	7.1	0	6.0	5.0	5.0	4.9				
PLAY	8.4	8.7	8.7	0.6	6.6	6.9	0	6.6	8.8	8.8	8.8	0	7.6	4.9	4.9	4.9				
FF	8.4	8.7	8.7	0.6	6.6	6.9	0	6.6	8.8	8.8	8.8	0	7.6	4.9	4.9	4.9				

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q6001			Q6002			Q6003			Q6004			Q6005			Q6007		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	13.5	13.5	5.1	0.5	13.5	0.4	0	13.5	0	13.5	13.5	14.2	5.3	14.2	5.0	7.1	13.5	7.6
PLAY	13.4	13.4	5.0	0.5	13.4	0.4	0	13.4	0	8.9	13.3	9.4	5.3	9.4	6.0	8.8	13.3	9.3
FF	13.4	13.4	5.0	0.8	13.5	0.7	0	13.4	0	13.4	13.4	14.1	5.3	14.1	5.0	8.8	13.4	9.3
REF. NO.	Q6008			Q6009			Q6019			Q6020			Q6021					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
STOP	4.9	5.0	5.7	5.0	5.0	5.7	—	5.0	—	0	0	0.7	0	45.0	0			
PLAY	4.9	5.0	5.7	4.9	5.0	5.7	—	5.0	—	0	0	0.7	0	45.8	0			
FF	4.9	5.0	5.7	5.0	5.0	5.7	—	5.0	—	0	0	0.7	0	45.5	0.2			
REF. NO.	QR2009			QR2013			QR2014			QR2015			QR6001			QR6002		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
PLAY	5.0	0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
FF	5.0	0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
REF. NO.	QR6003			QR6004			QR6005			QR6006			QR6007			QR6008		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	4.9	0.3	4.9	4.9	0	4.9	4.9	0	5.0	0	0	5.0	0	13.5	0	0	4.1	0
PLAY	4.9	0.3	4.9	4.9	0.4	4.6	4.9	0	4.9	0	4.4	0	0	13.5	0	0	0	4.9
FF	4.9	4.9	0	4.9	0.7	4.4	4.9	0	5.0	0	0	4.9	0	13.5	0	0	0	4.9
REF. NO.	QR6009			QR6010			QR6011			QR6012			QR6014			QR6015		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.1	0	0.1	4.1	0	5.0	0.2	4.9	4.9	0	0	4.5	0	0	3.5	0
PLAY	0	0.1	4.1	0	2.4	0	0	4.9	0.2	4.9	0.4	5.0	0	0.4	0	0	0.1	4.9
FF	0	0.1	4.1	0	2.3	0	0	4.9	0.2	4.9	4.9	0	0	4.5	0	0	3.5	0
REF. NO.	QR6016			QR6023			QR6024			QR6026			QR6029			QR6030		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	5.0	0.3	0	4.8	0	0	4.9	0	0	4.9	0	0	0	0	0	4.9
PLAY	0	0	5.0	0.3	0	4.8	0	0.4	4.6	0	0	4.9	0	0	0	0	0	4.9
FF	0	0	5.0	4.9	0	4.9	0	0.6	4.6	0	0	0	0	0	0	0	0.8	0

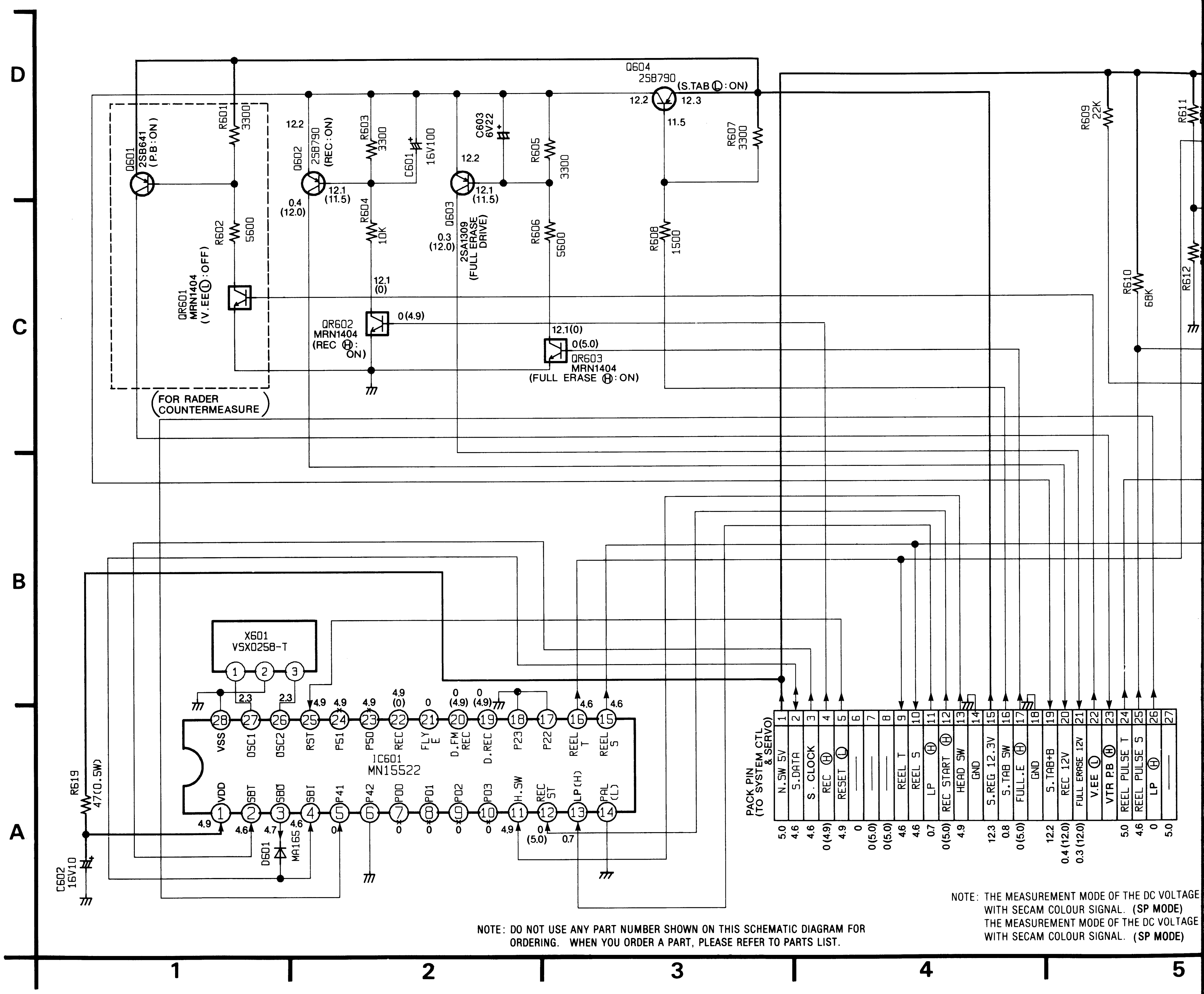
3-9. SUB SY



CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

Q6001		Q6002			Q6003			Q6004			Q6005			Q6007		
C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
13.5	5.1	0.5	13.5	0.4	0	13.5	0	13.5	13.5	14.2	5.3	14.2	5.0	7.1	13.5	7.6
13.4	5.0	0.5	13.4	0.4	0	13.4	0	8.9	13.3	9.4	5.3	9.4	6.0	8.8	13.3	9.3
13.4	5.0	0.8	13.5	0.7	0	13.4	0	13.4	13.4	14.1	5.3	14.1	5.0	8.8	13.4	9.3
Q6008		Q6009			Q6019			Q6020			Q6021					
C	B	E	C	B	E	C	B	E	C	B	E	C	B			
5.0	5.7	5.0	5.0	5.7	—	5.0	—	0	0	0.7	0	45.0	0			
5.0	5.7	4.9	5.0	5.7	—	5.0	—	0	0	0.7	0	45.8	0			
5.0	5.7	5.0	5.0	5.7	—	5.0	—	0	0	0.7	0	45.5	0.2			
QR2009		QR2013			QR2014			QR2015			QR6001			QR6002		
C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
0.7	5.0	5.0	5.0	0	0	4.9	0	5.0	2.3	4.9	0	5.0	0	0	0	4.9
QR6003		QR6004			QR6005			QR6006			QR6007			QR6008		
C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
0.3	4.9	4.9	0	4.9	4.9	0	5.0	0	0	5.0	0	13.5	0	0	4.1	0
0.3	4.9	4.9	0.4	4.6	4.9	0	4.9	0	4.4	0	0	13.5	0	0	0	4.9
4.9	0	4.9	0.7	4.4	4.9	0	5.0	0	0	4.9	0	13.5	0	0	0	4.9
QR6009		QR6010			QR6011			QR6012			QR6014			QR6015		
C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
0	4.1	0	0.1	4.1	0	5.0	0.2	4.9	4.9	0	0	4.5	0	0	3.5	0
0.1	4.1	0	2.4	0	0	4.9	0.2	4.9	0.4	5.0	0	0.4	0	0	0.1	4.9
0.1	4.1	0	2.3	0	0	4.9	0.2	4.9	4.9	0	0	4.5	0	0	3.5	0
QR6016		QR6023			QR6024			QR6026			QR6029			QR6030		
C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
0	5.0	0.3	0	4.8	0	0	4.9	0	0	4.9	0	0	0	0	0	4.9
0	5.0	0.3	0	4.8	0	0.4	4.6	0	0	4.9	0	0	0	0	0	4.9
0	5.0	4.9	0	4.9	0	0.6	4.6	0	0	0	0	0	0	0	0.8	0

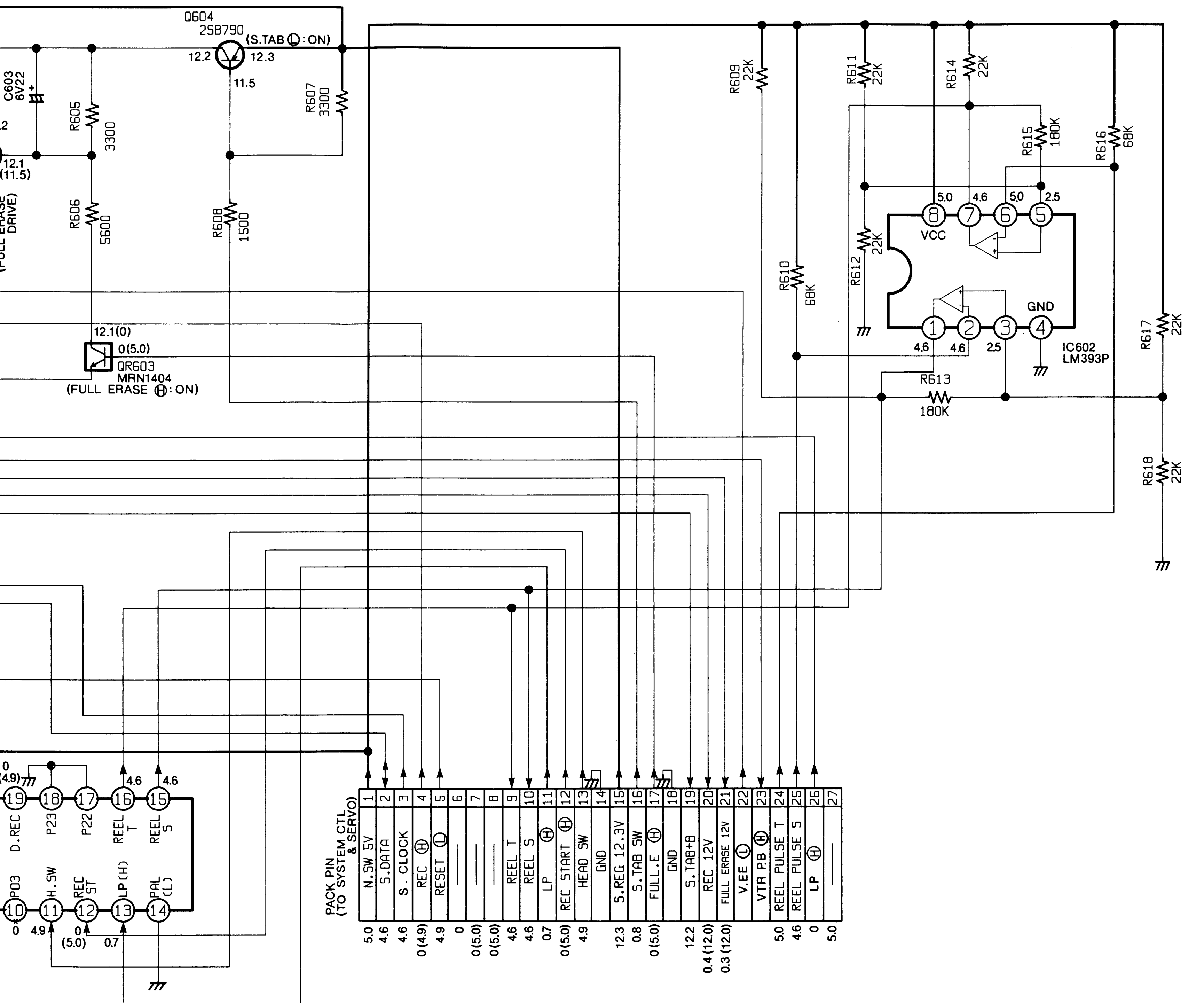
3-9. SUB SYSTEM CONTROL PACK SCHEMATIC DIAGRAM


D
C
B
A
1
2
3
4
5
Q601 2SB641 (P.B:ON)
R601 3300
R602 5600
QR601 MRN1404 (V.EE Ⓛ:OFF)
(FOR RADER COUNTERMEASURE)
Q602 2SB790 (REC:ON)
R603 3300
R604 10K
C601 16V100
QR602 MRN1404 (REC Ⓗ:ON)
Q603 2SA1309 (FULL ERASE DRIVE)
C603 6V22
R605 3300
R606 5600
QR603 MRN1404 (FULL ERASE Ⓗ:ON)
Q604 2SB790 (S.TAB Ⓛ:ON)
R607 3300
R608 1500
R609 22K
R610 68K
R611
R612
X601 VSX0258-T
IC601 MN15522
VSS
OSC1
OSC2
RST
P51
P50
REC
FLY E
D.FM REC
D.REC
P23
P22
REEL T
REEL S
VDD
SBT
SBO
SBI
P41
P42
P00
P01
P02
P03
H.SW
REC ST
LP(H)
PAL (L)
R619 47(0.5W)
C602 16V10
D601 MA165
PACK PIN (TO SYSTEM CTL & SERVO)
N.SW 5V
S.DATA
S.CLOCK
REC Ⓗ
RESET Ⓛ
REEL T
REEL S
LP Ⓗ
REC START Ⓗ
HEAD SW
GND
S.REG 12.3V
S.TAB SW
FULL.E Ⓗ
GND
S.TAB+B
REC 12V
FULL ERASE 12V
V.EE Ⓛ
VTR PB Ⓗ
REEL PULSE T
REEL PULSE S
LP Ⓗ

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE WITH SECAM COLOUR SIGNAL. **(SP MODE)**
THE MEASUREMENT MODE OF THE DC VOLTAGE WITH SECAM COLOUR SIGNAL. **(SP MODE)**

MATIC DIAGRAM


Q604
2SB790
(S.TAB Ⓛ: ON)
12.2
12.3
11.5
C603
6V22
R605
3300
R606
5600
R607
3300
R608
1500
12.1
(11.5)
(FULL ERASE DRIVE)
12.1(0)
0(5.0)
QR603
MRN1404
(FULL ERASE Ⓗ: ON)
R609
22K
R610
68K
R611
22K
R612
22K
R613
180K
R614
22K
R615
180K
R616
68K
R617
22K
R618
22K
5.0
4.6
5.0
2.5
VCC
GND
4.6
4.6
2.5
IC602
LM393P
0
(4.9)
4.6
4.6
19 D.REC
18 P23
17 P22
16 REEL T
15 REEL S
10 P03
11 H.SW
12 REC ST
13 LP(H)
14 PAL (L)
0
4.9
0
(5.0)
0.7
PACK PIN (TO SYSTEM CTL & SERVO)
1 N.5W 5V 5.0
2 S.DATA 4.6
3 S.CLOCK 4.6
4 REC Ⓗ 0(4.9)
5 RESET Ⓛ 4.9
6 0
7 0(5.0)
8 0(5.0)
9 REEL T 4.6
10 REEL S 4.6
11 LP Ⓗ 0.7
12 REC START Ⓗ 0(5.0)
13 HEAD SW 4.9
14 GND
15 S.REG 12.3V 12.3
16 S.TAB SW 0.8
17 FULL.E Ⓗ 0(5.0)
18 GND
19 S.TAB+B 12.2
20 REC 12V 0.4 (12.0)
21 FULL ERASE 12V 0.3 (12.0)
22 V.EE Ⓛ
23 VTR P.B Ⓗ
24 REEL PULSE T 5.0
25 REEL PULSE S 4.6
26 LP Ⓗ 0
27 5.0

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH SECAM COLOUR SIGNAL. **(SP MODE)**
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH SECAM COLOUR SIGNAL. **(SP MODE)**

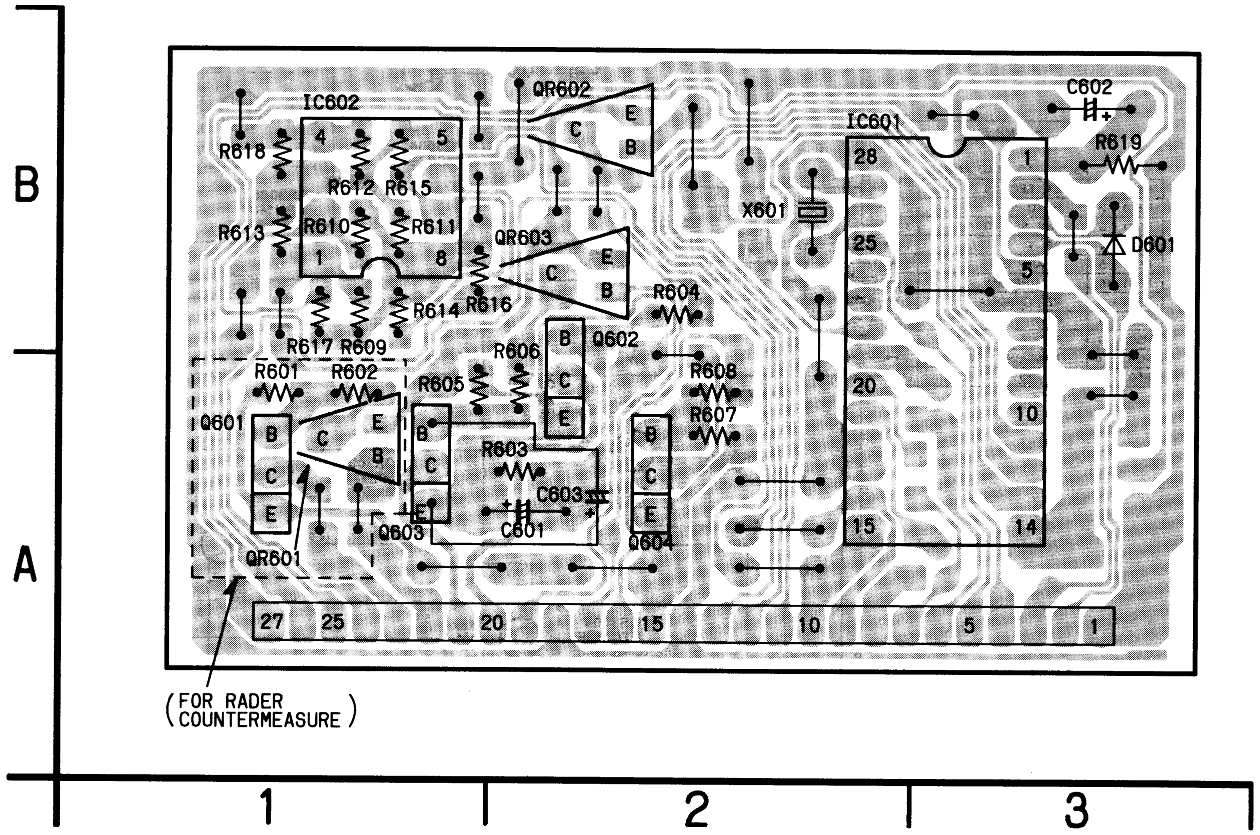
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3 4 5 6

3-10. SUB SYSTEM CONTROL PACK C.B.A. (VEP06648B)

SUB SYSTEM CONTROL PACK C.B.A.	
Transistor	
Q601 Q602 Q603 Q604	A-1 B-2 A-1 A-2
Transistor & Resistor	
QR601 QR602 QR603	A-1 B-2 B-2
Integrated Circuit	
IC601 IC602	B-1 B-2

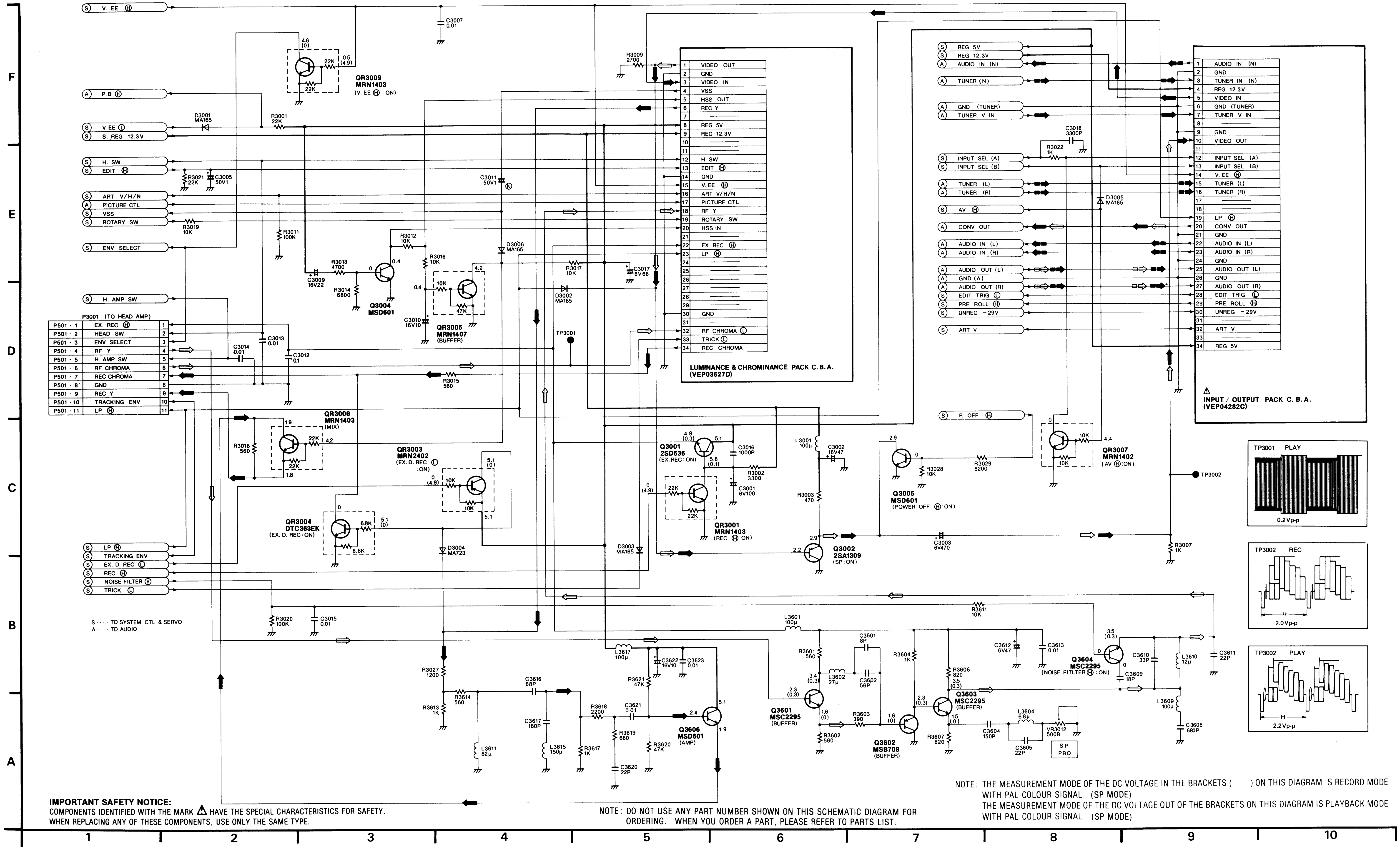
ADDRESS INFORMATION


IC602
R618
R613
R612
R615
R610
R611
R617
R609
R614
R616
QR602
QR603
IC601
28
1
25
5
20
10
15
14
C602
R619
D601
X601
R604
Q602
R606
R605
R601
R602
Q601
R603
C603
C601
Q603
Q604
R608
R607
QR601
27 25 20 15 10 5 1
(FOR RADER COUNTERMEASURE)
B
A
1
2
3

Next Page:
LUMINANCE & CHROMINANCE Section

3-11. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

◀	VIDEO MAIN SIGNAL PATH IN REC MODE
⇦	VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
◀■	AUDIO MAIN SIGNAL PATH IN REC MODE
⇦□	AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



F
E
D
C
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A
1
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10
S V. EE H
A P.B H
S V.EE L
S S. REG 12.3V
S H. SW
S EDIT H
S ART V/H/N
A PICTURE CTL
S VSS
S ROTARY SW
S ENV SELECT
S H. AMP SW
P3001 (TO HEAD AMP)
P501 · 1 EX. REC H 1
P501 · 2 HEAD SW 2
P501 · 3 ENV SELECT 3
P501 · 4 RF Y 4
P501 · 5 H. AMP SW 5
P501 · 6 RF CHROMA 6
P501 · 7 REC CHROMA 7
P501 · 8 GND 8
P501 · 9 REC Y 9
P501 · 10 TRACKING ENV 10
P501 · 11 LP H 11
S LP H
S TRACKING ENV
S EX. D. REC L
S REC H
S NOISE FILTER H
S TRICK L
S····TO SYSTEM CTL & SERVO
A····TO AUDIO
QR3009 MRN1403 (V. EE H :ON)
QR3006 MRN1403 (MIX)
QR3003 MRN2402 (EX. D. REC L :ON)
QR3004 DTC363EK (EX. D. REC :ON)
Q3004 MSD601
QR3005 MRN1407 (BUFFER)
Q3001 2SD636 (EX. REC :ON)
QR3001 MRN1403 (REC H :ON)
Q3002 2SA1309 (SP :ON)
Q3005 MSD601 (POWER OFF H :ON)
QR3007 MRN1402 (AV H :ON)
Q3601 MSC2295 (BUFFER)
Q3602 MSB709 (BUFFER)
Q3603 MSC2295 (BUFFER)
Q3604 MSC2295 (NOISE FITLTER H : ON)
Q3606 MSD601 (AMP)
TP3001
TP3002
1 VIDEO OUT
2 GND
3 VIDEO IN
4 VSS
5 HSS OUT
6 REC Y
7
8 REG 5V
9 REG 12.3V
10
11
12 H. SW
13 EDIT H
14 GND
15 V. EE H
16 ART V/H/N
17 PICTURE CTL
18 RF Y
19 ROTARY SW
20 HSS IN
21
22 EX REC H
23 LP H
24
25
26
27
28
29
30 GND
31
32 RF CHROMA L
33 TRICK L
34 REC CHROMA
LUMINANCE & CHROMINANCE PACK C. B. A. (VEP03627D)
S REG 5V
S REG 12.3V
A AUDIO IN (N)
A TUNER (N)
A GND (TUNER)
A TUNER V IN
S INPUT SEL (A)
S INPUT SEL (B)
A TUNER (L)
A TUNER (R)
S AV H
A CONV OUT
A AUDIO IN (L)
A AUDIO IN (R)
A AUDIO OUT (L)
A GND (A)
A AUDIO OUT (R)
S EDIT TRIG L
S PRE ROLL H
S UNREG -29V
S ART V
S P. OFF H
1 AUDIO IN (N)
2 GND
3 TUNER IN (N)
4 REG 12.3V
5 VIDEO IN
6 GND (TUNER)
7 TUNER V IN
8
9 GND
10 VIDEO OUT
11
12 INPUT SEL (A)
13 INPUT SEL (B)
14 V. EE H
15 TUNER (L)
16 TUNER (R)
17
18
19 LP H
20 CONV OUT
21 GND
22 AUDIO IN (L)
23 AUDIO IN (R)
24 GND
25 AUDIO OUT (L)
26 GND
27 AUDIO OUT (R)
28 EDIT TRIG L
29 PRE ROLL H
30 UNREG -29V
31
32 ART V
33
34 REG 5V
⚠ INPUT / OUTPUT PACK C. B. A. (VEP04282C)
TP3001 PLAY
0.2Vp-p
TP3002 REC
H
2.0Vp-p
TP3002 PLAY
H
2.2Vp-p
SP PBQ

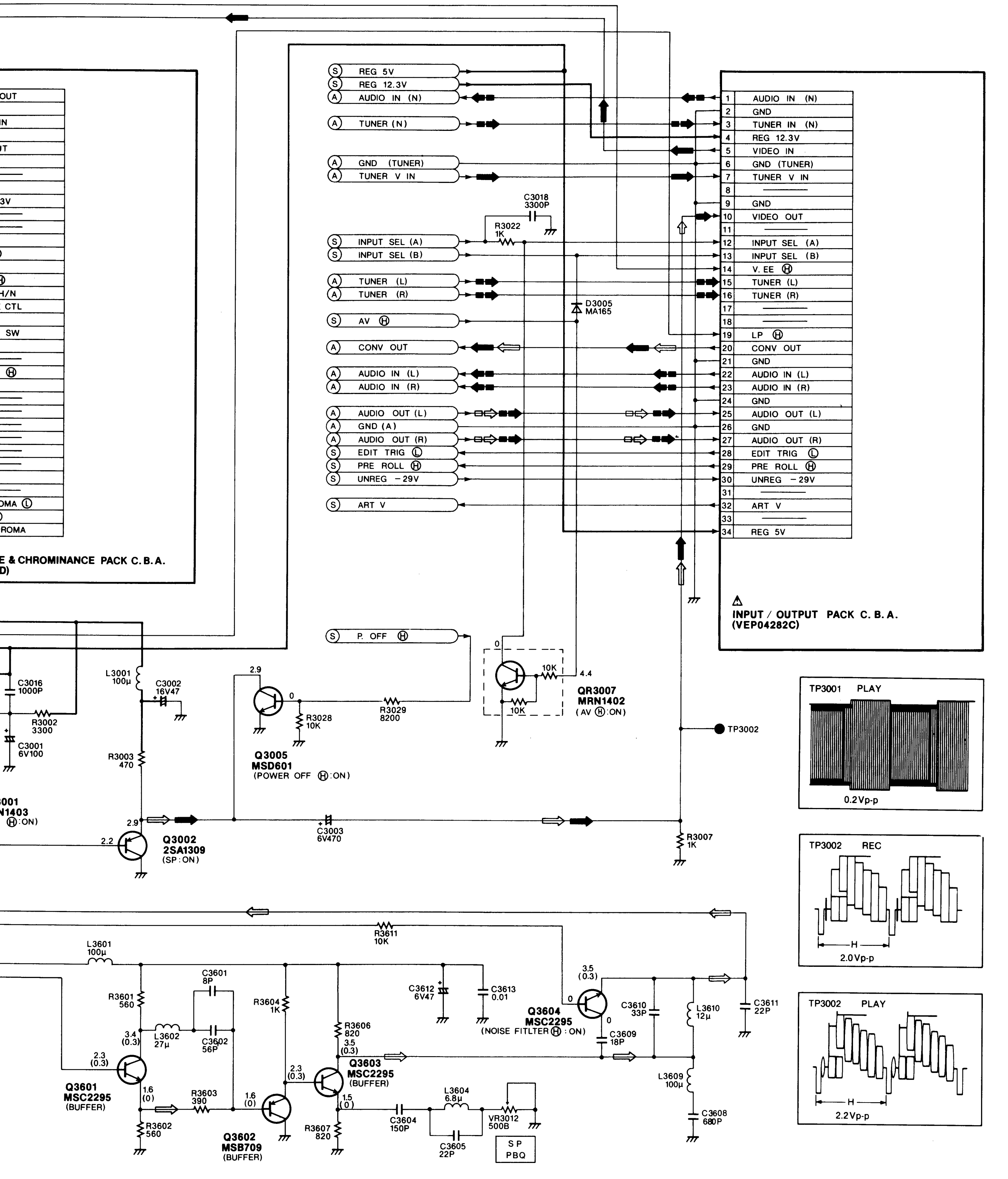
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

SIGNAL PATH IN REC MODE
SIGNAL PATH IN PLAYBACK MODE

■■ AUDIO MAIN SIGNAL PATH IN REC MODE
□□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

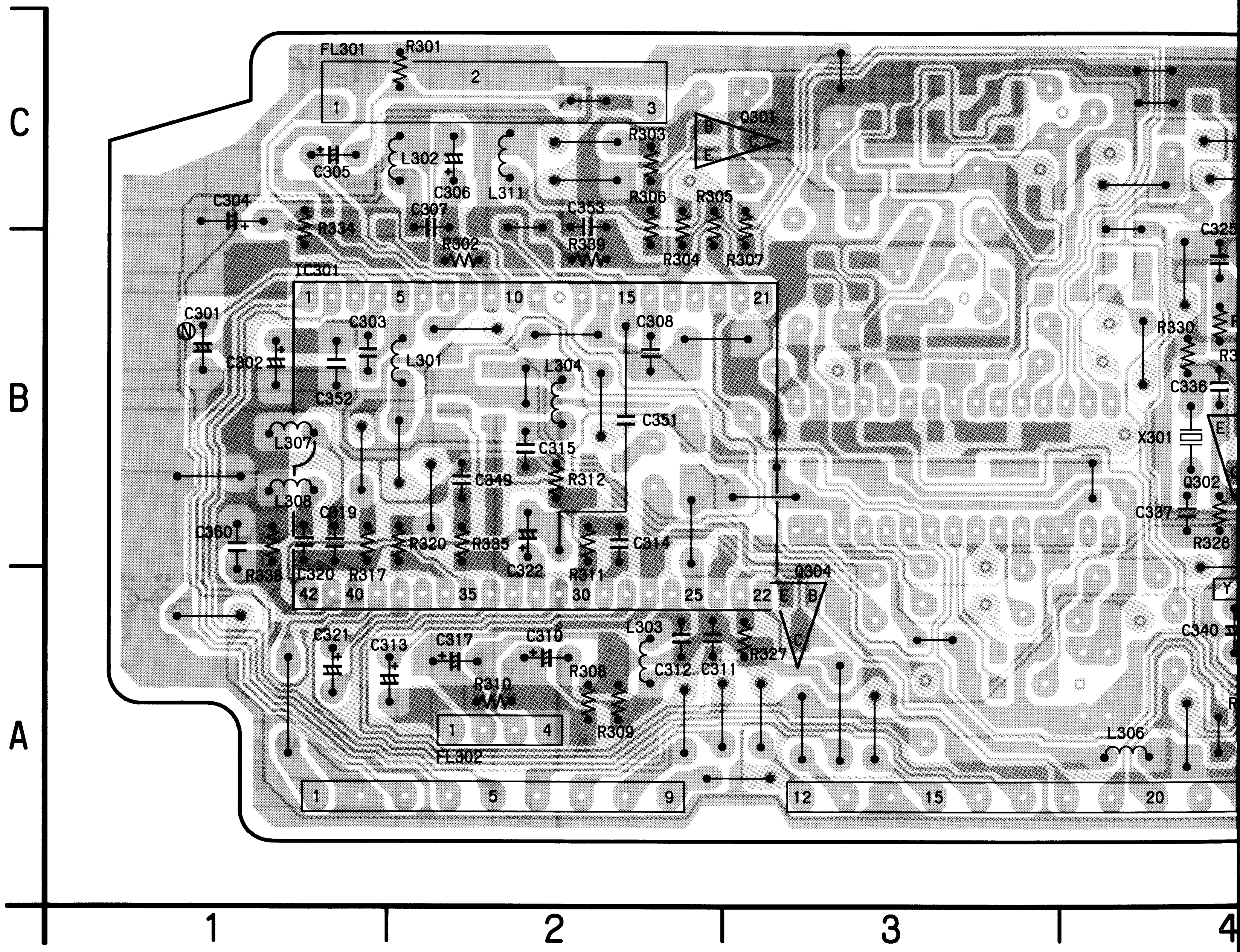

REG 5V
REG 12.3V
AUDIO IN (N)
TUNER (N)
GND (TUNER)
TUNER V IN
INPUT SEL (A)
INPUT SEL (B)
TUNER (L)
TUNER (R)
AV Ⓗ
CONV OUT
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
GND (A)
AUDIO OUT (R)
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
UNREG −29V
ART V
P. OFF Ⓗ
1 AUDIO IN (N)
2 GND
3 TUNER IN (N)
4 REG 12.3V
5 VIDEO IN
6 GND (TUNER)
7 TUNER V IN
9 GND
10 VIDEO OUT
12 INPUT SEL (A)
13 INPUT SEL (B)
14 V. EE Ⓗ
15 TUNER (L)
16 TUNER (R)
19 LP Ⓗ
20 CONV OUT
21 GND
22 AUDIO IN (L)
23 AUDIO IN (R)
24 GND
25 AUDIO OUT (L)
26 GND
27 AUDIO OUT (R)
28 EDIT TRIG Ⓛ
29 PRE ROLL Ⓗ
30 UNREG −29V
32 ART V
34 REG 5V
INPUT / OUTPUT PACK C.B.A. (VEP04282C)
E & CHROMINANCE PACK C.B.A.
C3018 3300P
R3022 1K
D3005 MA165
QR3007 MRN1402 (AV Ⓗ:ON)
10K
10K
4.4
TP3002
L3001 100μ
C3002 16V47
C3016 1000P
R3002 3300
C3001 6V100
R3003 470
Q3005 MSD601 (POWER OFF Ⓗ:ON)
R3028 10K
R3029 8200
2.9
Q3002 2SA1309 (SP:ON)
C3003 6V470
R3007 1K
TP3001 PLAY
0.2Vp-p
TP3002 REC
2.0Vp-p
TP3002 PLAY
2.2Vp-p
H
R3611 10K
L3601 100μ
R3601 560
C3601 8P
L3602 27μ
C3602 56P
R3604 1K
R3606 820
C3612 6V47
C3613 0.01
Q3604 MSC2295 (NOISE FILTLER Ⓗ:ON)
C3610 33P
L3610 12μ
C3611 22P
C3609 18P
L3609 100μ
C3608 680P
Q3601 MSC2295 (BUFFER)
R3603 390
R3602 560
Q3602 MSB709 (BUFFER)
Q3603 MSC2295 (BUFFER)
R3607 820
C3604 150P
L3604 6.8μ
C3605 22P
VR3012 500B
SP PBQ

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

MBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
DER A PART, PLEASE REFER TO PARTS LIST.

6 7 8 9 10

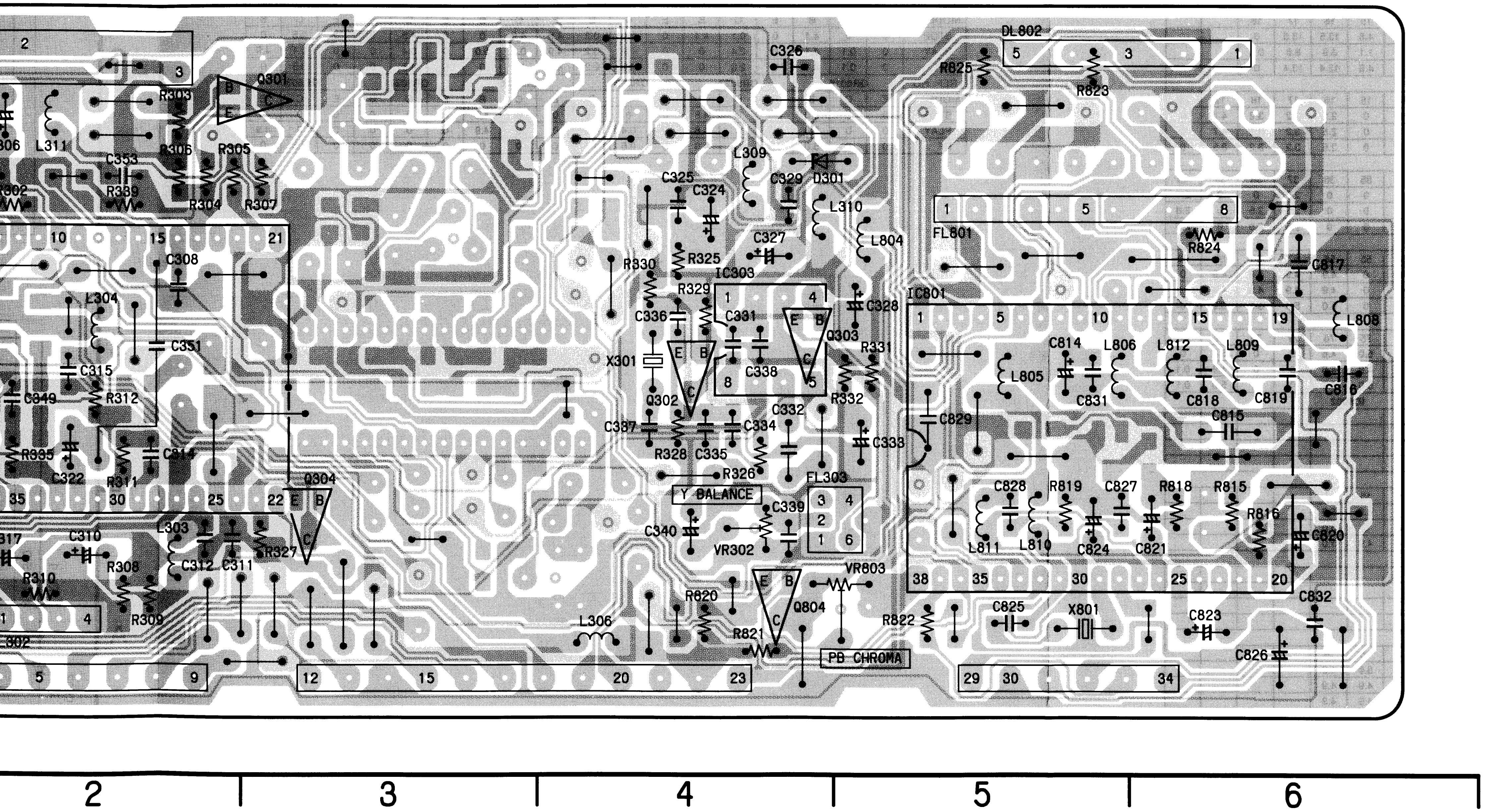
3-12. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627D)


C
B
A
1
2
3
4
FL301
R301
Q301
R303
R306
R305
R304
R307
C305
L302
C306
L311
C304
C307
R334
R302
C353
R339
IC301
C301
C303
C308
C302
L301
L304
C352
C351
C315
L307
C349
R312
L308
C319
C360
R320
R395
C314
R338
C320
R317
C322
R311
Q304
C321
C313
C317
C310
L303
R327
R308
C312
C311
R310
R309
FL302
L306
R330
C336
X301
Q302
C387
R328
C340
C325

NANCE PACK C.B.A. (VEP03627D)

LUMINANCE & CHROMINANCE PACK C.B.A.			
Transistor		**Adjustment**	
Q301	C-3	VR302	A-4
Q302	B-4	VR803	A-5
Q303	B-4		
Q304	A-3		
Q804	A-4		
Integrated circuit			
IC301	B-1		
IC303	B-4		
IC801	B-5		

ADDRESS INFORMATION



2
3
Q301
R303
B
E
C
L311
R306
R305
C353
R339
R304
R307
10
15
21
C308
L304
C351
C315
R312
C349
R335
C322
R311
C31
35
30
25
22
E
B
Q304
C
L303
C310
C312
C311
R327
R308
R310
R309
4
9
12
15
20
23
C326
C325
C324
L309
C329
D301
L310
C327
L804
R330
R325
IC303
R329
C336
C331
1
4
E
B
Q303
C328
X301
E
B
C
8
5
C338
Q302
R331
C332
R332
C387
C334
C333
R328
C335
R326
FL303
Y BALANCE
C339
C340
VR302
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4
2
1
6
E
B
VR803
Q804
R620
R821
C
L306
PB CHROMA
DL802
R825
R823
5
3
1
FL801
8
R824
C817
IC801
1
5
10
15
19
L808
C814
L806
L812
L809
L805
C831
C818
C819
C816
C815
C829
C828
R819
C827
R818
R815
R816
C820
L811
L810
C824
C821
38
35
30
25
20
R822
C825
X801
C823
C832
C826
29
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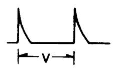
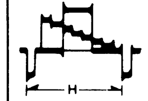
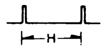
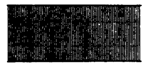
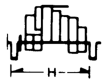
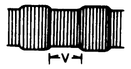
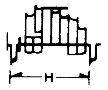
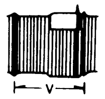
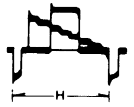
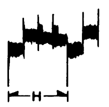
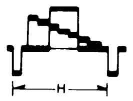
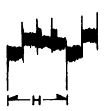
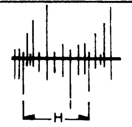
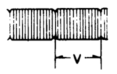
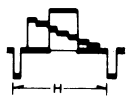
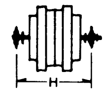
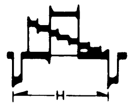
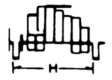
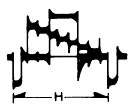
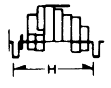
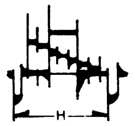
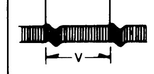
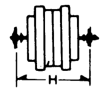
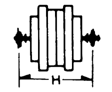
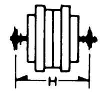
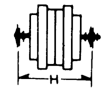
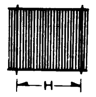
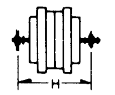
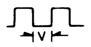
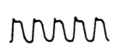
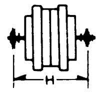
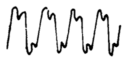
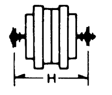
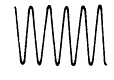
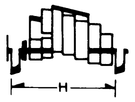
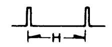
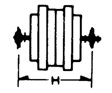
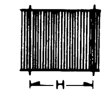
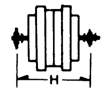
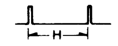
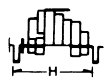
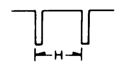
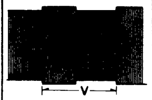
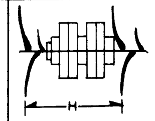
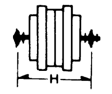
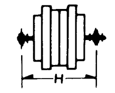
IC301 (VEFH03D)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 1.8Vp-p (REC/P.B)	17	 0.9Vp-p (REC/P.B)
2	 4.4Vp-p (REC/P.B)	22	 1.2Vp-p (REC)
3	 1.0Vp-p (REC/P.B)	23	 1.4Vp-p (P.B)
5	 0.8Vp-p (REC)	26	 0.8Vp-p (P.B)
5	 1.2Vp-p (P.B)	28	 0.45Vp-p (P.B)
7, 8	 0.44Vp-p (REC) 0.5Vp-p (P.B)	30	 1.2Vp-p (P.B)
9, 10	 0.6Vp-p (REC)	33	 0.25Vp-p (P.B)
11	 0.28Vp-p (REC) 0.34Vp-p (P.B)	35	 0.36Vp-p (P.B)
13	 0.9Vp-p (REC) 1.0Vp-p (P.B)	37, 38	 0.82Vp-p (REC/P.B)
15	 0.9Vp-p (REC/P.B)	40	 2.2Vp-p (REC/P.B)
16	 0.68Vp-p (REC/P.B)	41	 0.5Vp-p (REC) 0.52Vp-p (P.B)

IC801 (VEFH04F)

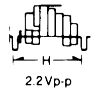
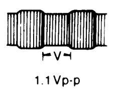
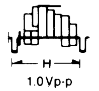
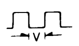
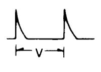
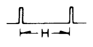
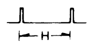
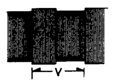
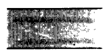
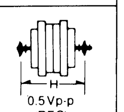
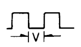
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	 0.22Vp-p (REC) 0.12Vp-p (P.B)	15	 0.5Vp-p (REC)
3	 1.0Vp-p (REC) 0.6Vp-p (P.B)	17	 0.45Vp-p (REC) 0.2Vp-p (P.B)
5	 0.18Vp-p (REC/P.B)	19	 0.28Vp-p (REC) 0.15Vp-p (P.B)
6	 5.0Vp-p (REC/P.B)	28	 0.8Vp-p (REC/P.B)
7	 0.55Vp-p (REC/P.B)	29	 1.1Vp-p (REC/P.B)
9	 0.42Vp-p (REC) 0.24Vp-p (P.B)	31	 0.8Vp-p (REC/P.B)
10	 1.2Vp-p (REC)	32	 4.5Vp-p (REC/P.B)
10	 0.6Vp-p (P.B)	33	 0.3Vp-p (REC/P.B)
11	 0.44Vp-p (REC) 0.2Vp-p (P.B)	34	 5.0Vp-p (REC/P.B)
12	 1.0Vp-p (REC/P.B)	35	 5.0Vp-p (REC/P.B)
13	 0.25Vp-p (P.B)	37	 0.48Vp-p (P.B)
14	 0.32Vp-p (REC) 0.15Vp-p (P.B)	38	 1.1Vp-p (P.B)

3-13. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM

◀ MAIN SIGNAL PATH IN REC MODE
◁ MAIN SIGNAL PATH IN PLAYBACK MODE

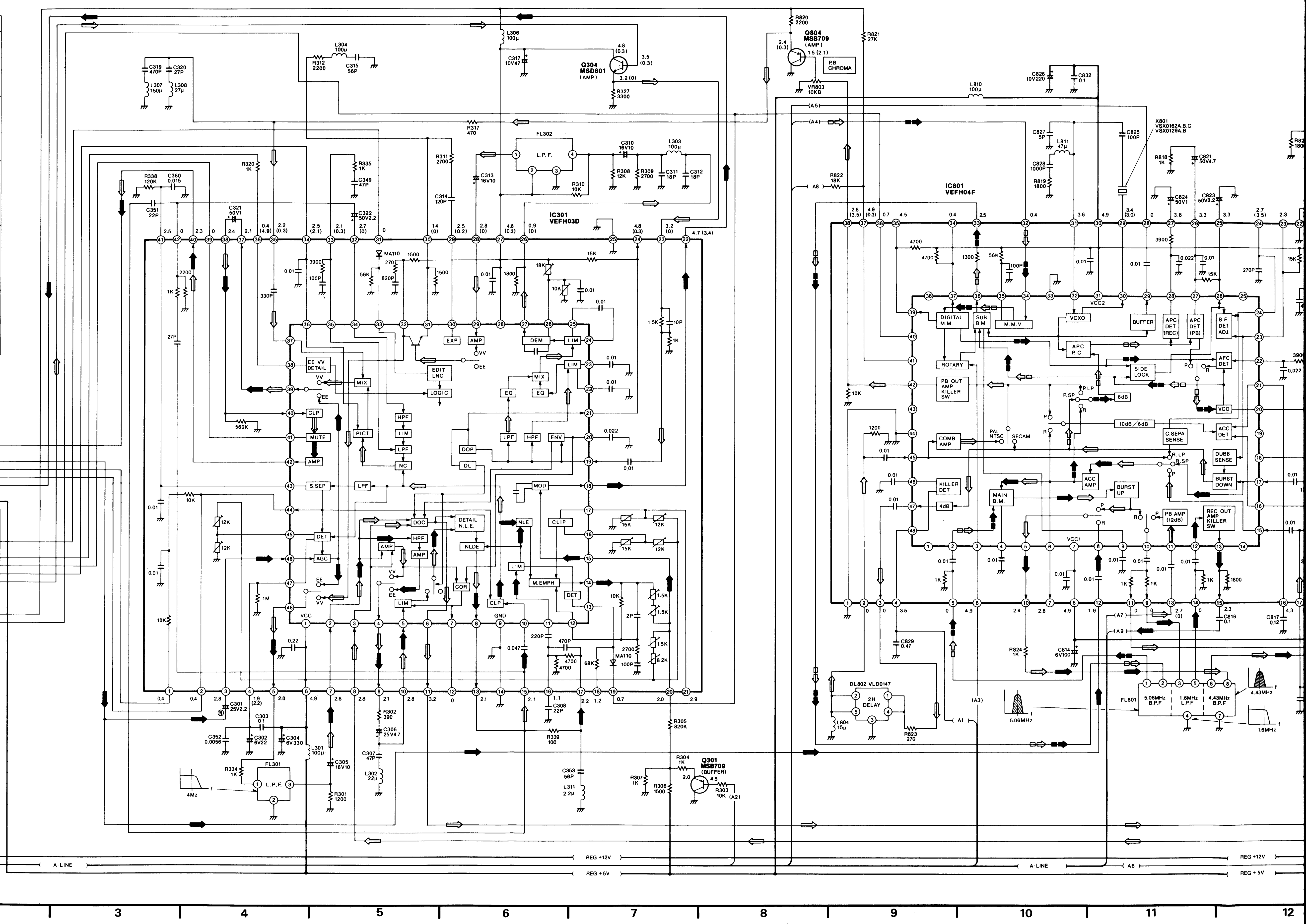
◀■ 5.06MHz PHASE ROTATIONA
◁□ 5.06MHz PHASE ROTATIONA

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 2.2Vp-p (REC/P.B)	18	 1.1Vp-p (P.B)
3	 1.0Vp-p (REC/P.B)	19	 5.0Vp-p (REC/P.B)
4	 1.8Vp-p (REC/P.B)	20	 4.5Vp-p (REC/P.B)
5	 4.4Vp-p (REC/P.B)	32	 0.2Vp-p (P.B)
6	 1.2Vp-p (REC)	34	 0.5Vp-p (REC)
12	 5.0Vp-p (REC/P.B)		

PACK PIN (TO LUMINANCE & CHROMINANCE)

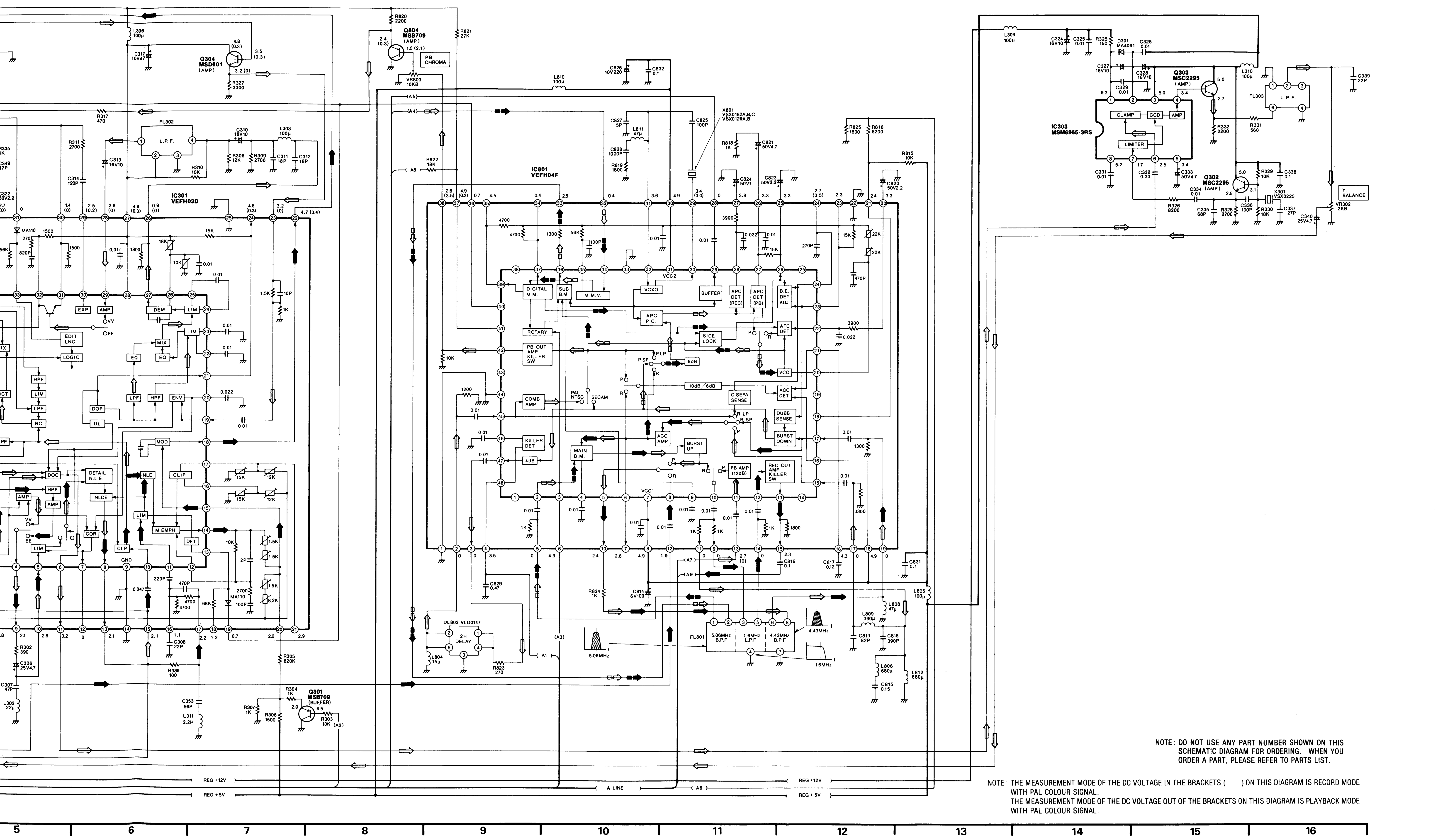
VIDEO OUT	1	2.3	
GND	2		
VIDEO IN	3	1.9	
VSS	4	0.4	
HSS OUT	5	0.4	
REC Y	6	4.7 (3.4)	
	7	3.5	(A1)
REG 5V	8	5.0	
REG 12.3V	9	12.1	
	10		
	11		
HEAD SW	12	5.0	(A2)
EDIT Ⓗ	13	0	
GND	14		
EE Ⓗ	15	0.4(4.9)	
ART V/H/N	16	0	
PICTURE CTL	17	2.5(2.1)	
RF Y	18	3.5(0.3)	
ROTARY SW	19	4.9	(A3)
HSS IN	20	0	(A4)
	21		
E.REC Ⓗ	22	4.9(0.3)	
LP Ⓗ	23	0.7	
	24		
	25		
	26		
	27		
	28		
	29	0	(A5)
GND	30		
	31	0.4	(A6)
RF CHROMA	32	2.7(0)	(A7)
TRICK Ⓛ	33	4.9(0.3)	(A8)
REC CHROMA	34	0(0.1)	(A9)


IC301 VEFH03D
IC801 VEFH04F
Q304 MSD601 (AMP)
Q804 MSB709 (AMP)
Q301 MSB709 (BUFFER)
FL301 L.P.F.
FL302 L.P.F.
FL801 5.06MHz B.P.F 1.6MHz L.P.F 4.43MHz B.P.F
DL802 VLD0147 2H DELAY
X801 VSX0162A,B,C VSX0129A,B
PB CHROMA
EE-VV DETAIL
CLP
MUTE
AMP
S.SEP
LPF
MIX
PICT
HPF
LIM
NC
EDIT LNC
LOGIC
EXP
DEM
EQ
DOP
DL
ENV
MOD
DOC
DETAIL N.L.E.
NLE
NLDE
CLIP
DET
AGC
COR
M.EMPH
DIGITAL M.M.
SUB B.M.
M.M.V.
ROTARY
PB OUT AMP KILLER SW
COMB AMP
KILLER DET
4dB
MAIN B.M.
VCXO
APC P.C
SIDE LOCK
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ
AFC DET
VCO
6dB
10dB/6dB
ACC DET
C.SEPA SENSE
DUBB SENSE
BURST DOWN
ACC AMP
BURST UP
PB AMP (12dB)
REC OUT AMP KILLER SW
PAL NTSC
SECAM
VCC
VCC1
VCC2
GND
5.06MHz
4.43MHz
1.6MHz
4Mz
REG +12V
REG +5V
A-LINE
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

IAGRAM

◀ MAIN SIGNAL PATH IN REC MODE
◁ MAIN SIGNAL PATH IN PLAYBACK MODE

◀■ 5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE
◁□ 5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE



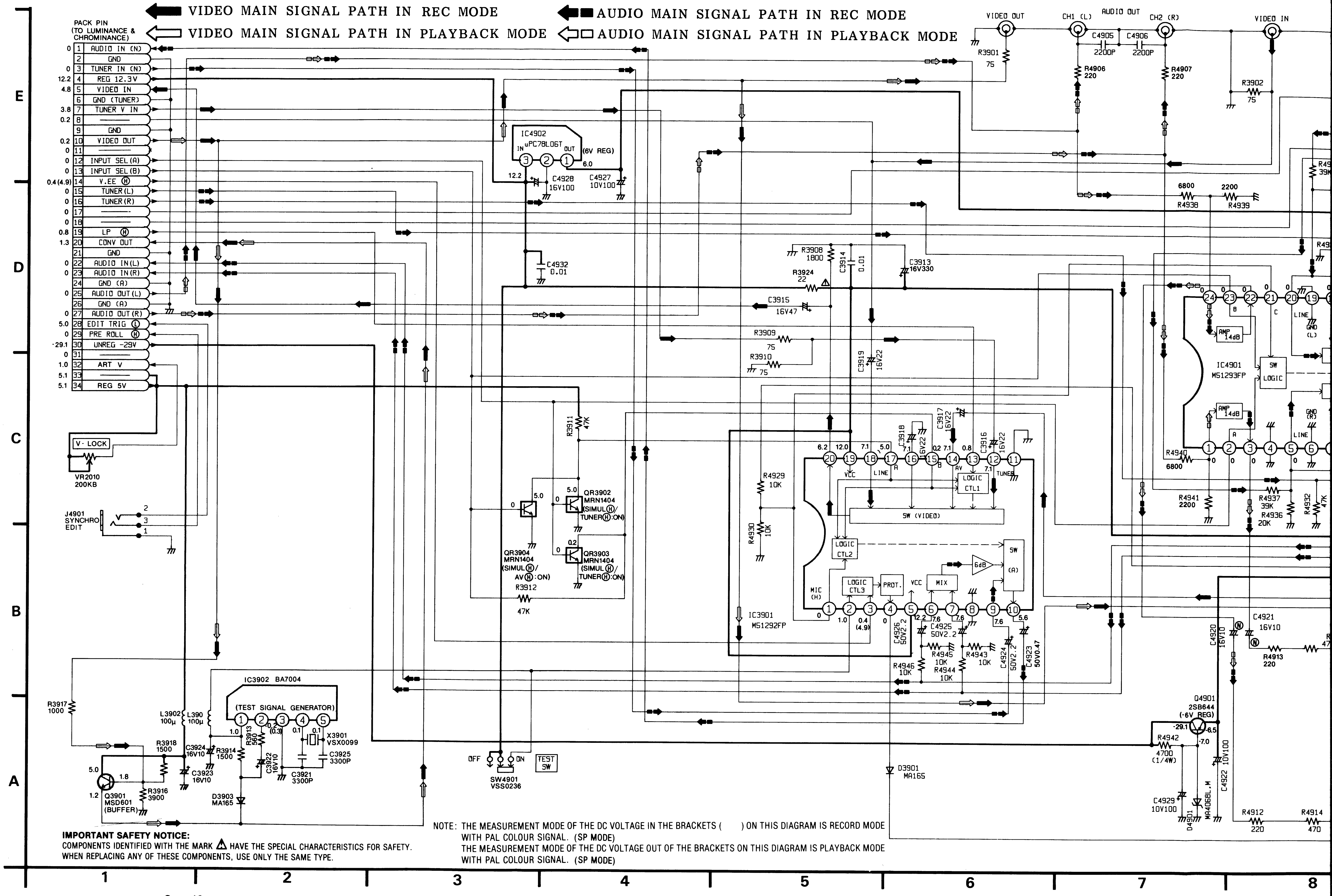
IC301
VEFH03D
IC801
VEFH04F
IC303
MSM6965-3RS
Q304
MSD601
(AMP)
Q804
MSB709
(AMP)
P.B
CHROMA
Q303
MSC2295
(AMP)
Q302
MSC2295
(AMP)
Q301
MSB709
(BUFFER)
FL302
L.P.F.
FL303
L.P.F.
FL801
5.06MHz B.P.F
1.6MHz L.P.F
4.43MHz B.P.F
DL802 VLD0147
2H DELAY
X801
VSX0162A,B,C
VSX0129A,B
X301
VSX0225
D301
MA4091
MA110
VR803
10KB
VR302
2KB
Y BALANCE
CLAMP
CCD
AMP
LIMITER
EDIT LNC
LOGIC
EXP
AMP
DEM
LIM
MIX
EQ
HPF
LPF
NC
DOP
DL
ENV
MOD
DOC
DETAIL N.L.E.
NLE
NLDE
CLIP
COR
LIM
M.EMPH
DET
GND
VV
EE
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
VCC2
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ
APC P.C.
SIDE LOCK
AFC DET
ROTARY
PB OUT AMP KILLER SW
6dB
VCO
10dB/6dB
ACC DET
COMB AMP
PAL NTSC
SECAM
C.SEPA SENSE
DUBB SENSE
BURST DOWN
KILLER DET
4dB
ACC AMP
BURST UP
MAIN B.M.
PB AMP (12dB)
REC OUT AMP KILLER SW
VCC1
P.SP
P.LP
R.LP
R.SP
5.06MHz
4.43MHz
1.6MHz
A1
A2
A3
A4
A5
A6
A7
A8
A9
REG +12V
REG +5V
A-LINE
5
6
7
8
9
10
11
12
13
14
15
16

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

Next Page:
INPUT/OUTPUT Section

3-14. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
PACK PIN (TO LUMINANCE & CHROMINANCE)
1 AUDIO IN (N)
2 GND
3 TUNER IN (N)
4 REG 12.3V
5 VIDEO IN
6 GND (TUNER)
7 TUNER V IN
9 GND
10 VIDEO OUT
12 INPUT SEL (A)
13 INPUT SEL (B)
14 V.EE Ⓗ
15 TUNER (L)
16 TUNER (R)
19 LP Ⓗ
20 CONV OUT
21 GND
22 AUDIO IN (L)
23 AUDIO IN (R)
24 GND (A)
25 AUDIO OUT (L)
26 GND (A)
27 AUDIO OUT (R)
28 EDIT TRIG Ⓛ
29 PRE ROLL Ⓗ
30 UNREG -29V
32 ART V
34 REG 5V
VIDEO OUT
CH1 (L)
AUDIO OUT
CH2 (R)
VIDEO IN
IC4902 uPC78L06T
(6V REG)
IC3901 M51292FP
IC4901 M51293FP
IC3902 BA7004
(TEST SIGNAL GENERATOR)
QR3902 MRN1404 (SIMUL Ⓗ/ TUNER Ⓗ:ON)
QR3903 MRN1404 (SIMUL Ⓗ/ TUNER Ⓗ:ON)
QR3904 MRN1404 (SIMUL Ⓗ/ AV Ⓗ:ON)
Q3901 MSD601 (BUFFER)
Q4901 2SB644 (-6V REG)
V-LOCK
VR2010 200KB
J4901 SYNCHRO EDIT
SW4901 VSS0236
OFF
ON
TEST SW
X3901 VSX0099
D3901 MA165
D3903 MA165
D4901 MA4068L,M
LOGIC CTL1
LOGIC CTL2
LOGIC CTL3
SW (VIDEO)
PROT.
MIX
SW (A)
AMP 14dB
SW LOGIC
E
D
C
B
A
1
2
3
4
5
6
7
8

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

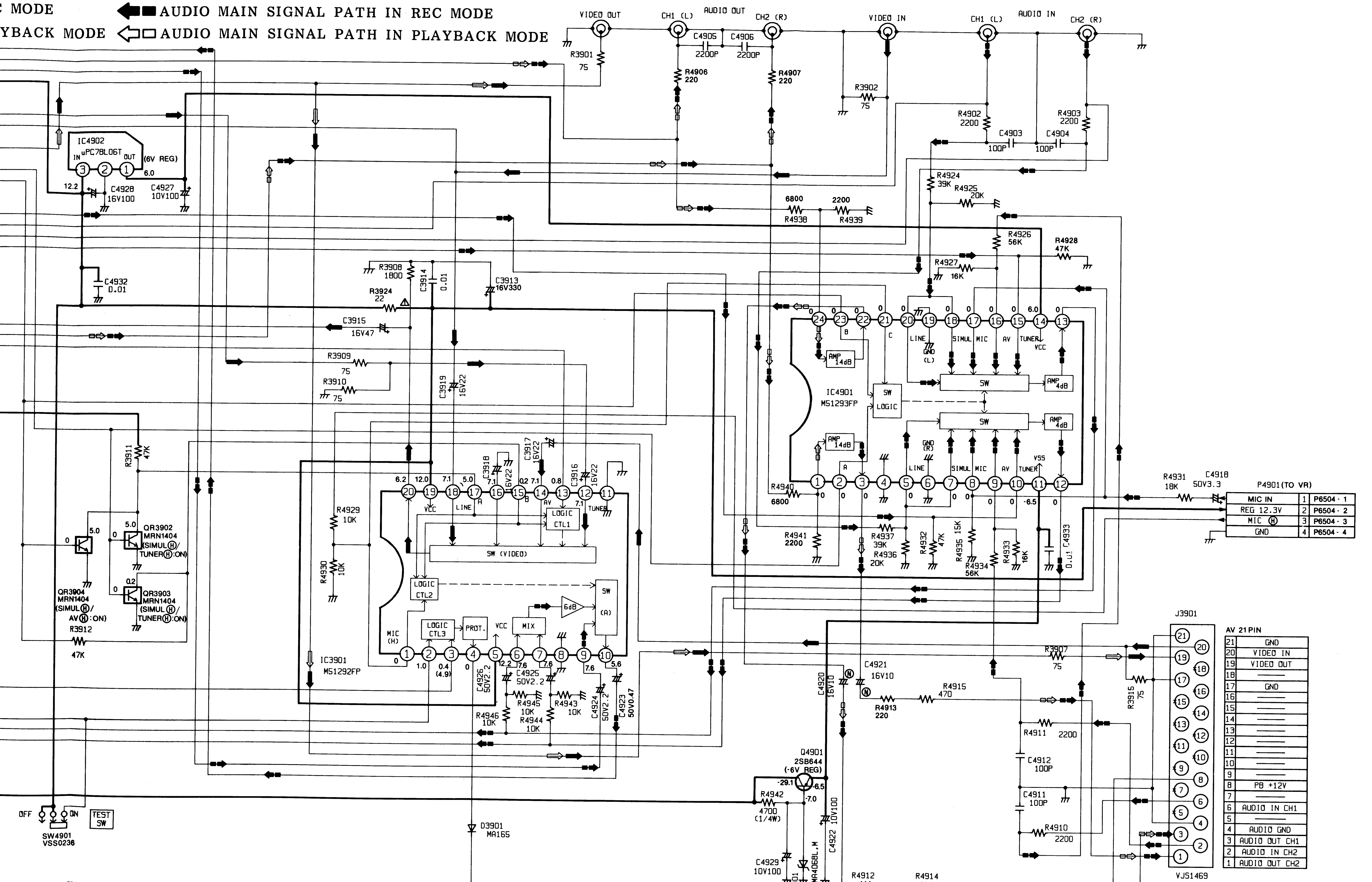
AM

C MODE

YBACK MODE

◀■ AUDIO MAIN SIGNAL PATH IN REC MODE

◁□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

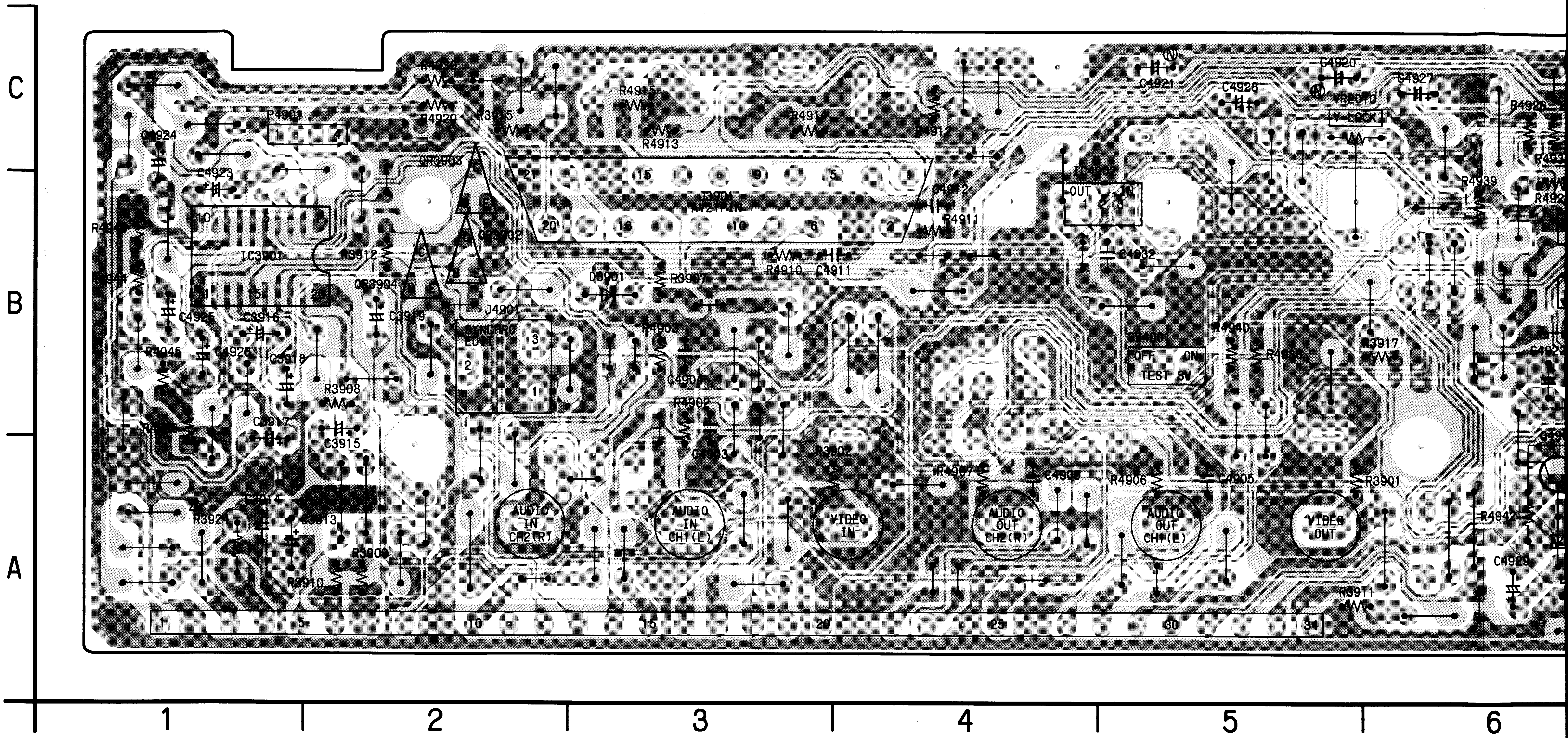

VIDEO OUT
CH1 (L)
AUDIO OUT
CH2 (R)
VIDEO IN
CH1 (L)
AUDIO IN
CH2 (R)
R3901 75
C4905 2200P
C4906 2200P
R4906 220
R4907 220
R3902 75
R4902 2200
R4903 2200
C4903 100P
C4904 100P
IC4902 uPC78L06T
IN OUT (6V REG)
12.2
6.0
C4928 16V100
C4927 10V100
R4924 39K
R4925 20K
6800 R4938
2200 R4939
R4926 56K
R4928 47K
R4927 16K
C4932 0.01
R3908 1800
C3914 0.01
C3913 16V330
R3924 22
C3915 16V47
R3909 75
R3910 75
C3919 16V22
IC4901 M51293FP
SW LOGIC
AMP 14dB
AMP 4dB
SW
LINE GND (L)
SIMUL MIC AV TUNER VCC
LINE GND (R) SIMUL MIC AV TUNER VSS
R4940 6800
R4941 2200
R4937 39K
R4936 20K
R4932 47K
R4935 15K
R4934 56K
R4933 16K
C4933 0.01
R4931 18K
C4918 50V3.3
P4901(TO VR)
R3911 47K
QR3902 MRN1404 (SIMUL Ⓗ/ TUNER Ⓗ:ON)
QR3903 MRN1404 (SIMUL Ⓗ/ TUNER Ⓗ:ON)
QR3904 MRN1404 (SIMUL Ⓗ/ AV Ⓗ:ON)
R3912 47K
C3918 16V22
C3917 16V22
C3916 16V22
R4929 10K
R4930 10K
SW (VIDEO)
LOGIC CTL1
LOGIC CTL2
LOGIC CTL3
PROT.
MIX
6dB
SW (A)
MIC (H)
VCC
LINE
AV
TUNER
IC3901 M51292FP
C4926 50V2.2
C4925 50V2.2
R4945 10K
R4944 10K
R4943 10K
R4946 10K
C4924 50V2.2
C4923 50V0.47
C4920 16V10
C4921 16V10
R4913 220
R4915 470
R3907 75
R3915 75
R4911 2200
C4912 100P
C4911 100P
R4910 2200
Q4901 2SB644 (-6V REG)
-29.1 -6.5 -7.0
R4942 4700 (1/4W)
C4929 10V100
D4901 MA4068L,M
C4922 10V100
R4912 220
R4914 470
D3901 MA165
OFF ON
SW4901 VSS0236
TEST SW
J3901
VJ51469
MIC IN | 1 | P6504 · 1
REG 12.3V | 2 | P6504 · 2
MIC Ⓗ | 3 | P6504 · 3
GND | 4 | P6504 · 4
AV 21PIN
21 GND
20 VIDEO IN
19 VIDEO OUT
18 ———
17 GND
16 ———
15 ———
14 ———
13 ———
12 ———
11 ———
10 ———
9 ———
8 PB +12V
7 ———
6 AUDIO IN CH1
5 ———
4 AUDIO GND
3 AUDIO OUT CH1
2 AUDIO IN CH2
1 AUDIO OUT CH2

E: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

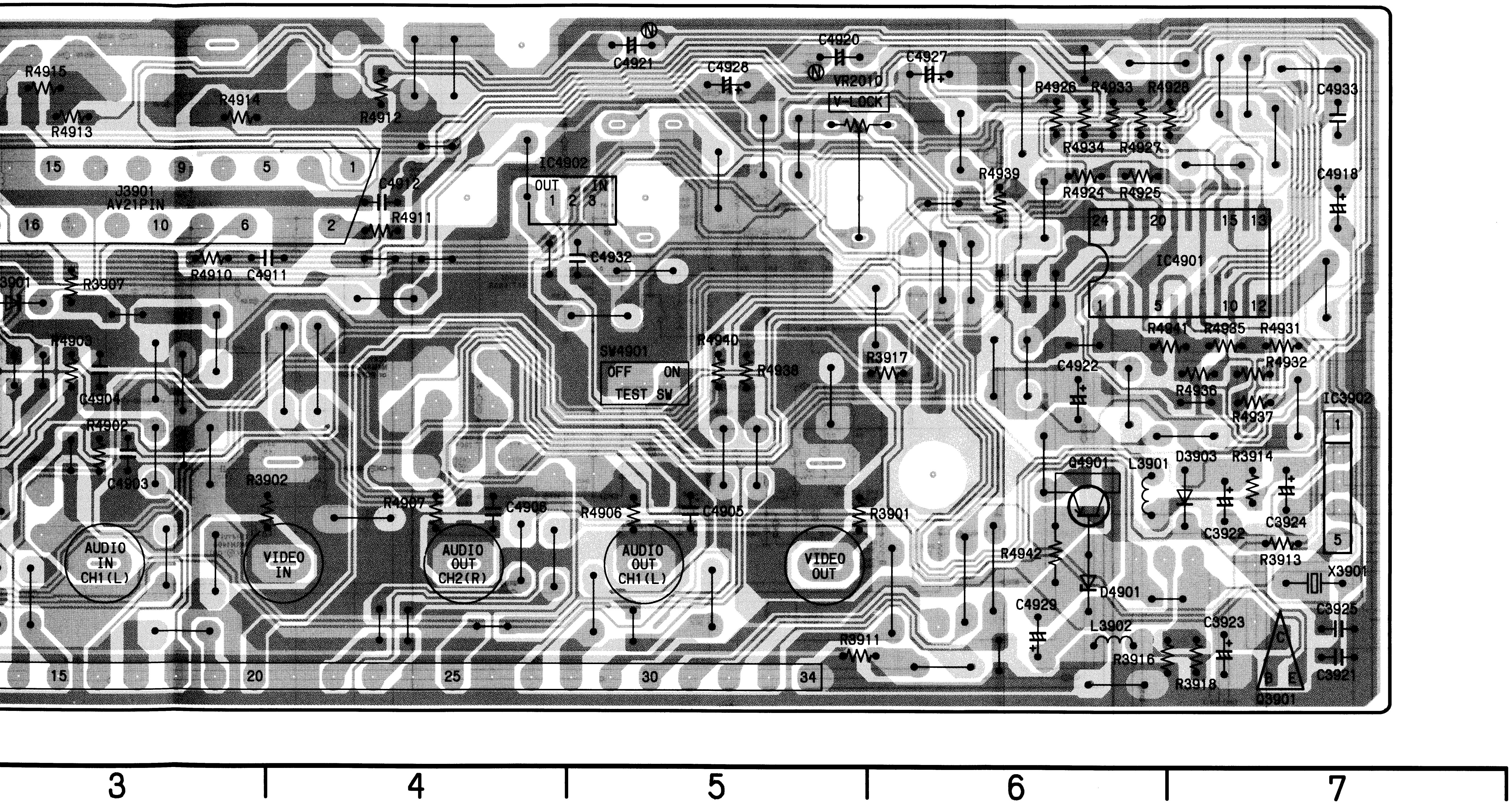
3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

3-15. INPUT/OUTPUT PACK C.B.A. (VEP04282C)


C
B
A
1
2
3
4
5
6
R4930
R4929
R3915
R4915
R4913
R4914
R4912
C4921
C4928
C4920
C4927
VR2010
V-LOCK
R4926
R4939
P4901
1
4
C4924
C4923
QR3903
QR3902
QR3904
R3912
IC3901
10
5
1
11
15
20
R4943
R4944
C4925
C3916
C4926
R4945
C3918
C3919
J4901
SYNCHRO EDIT
3
2
1
J3901
AV21PIN
21
15
9
5
1
20
16
10
6
2
C4912
R4911
R4910
C4911
D3901
R3907
IC4902
OUT
IN
1 2 3
C4932
R4903
C4904
R4902
C4903
SW4901
OFF
ON
TEST SW
R4940
R4938
R3917
C4922
R3908
C3917
C3915
R3902
R4907
C4906
R4906
C4905
R3901
R3924
C3914
C3913
R3909
R3910
AUDIO IN CH2(R)
AUDIO IN CH1(L)
VIDEO IN
AUDIO OUT CH2(R)
AUDIO OUT CH1(L)
VIDEO OUT
R4942
C4929
R3911
1
5
10
15
20
25
30
34

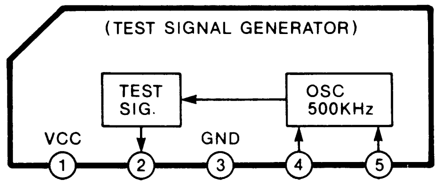
INPUT/OUTPUT PACK C.B.A.	
Transistor	
Q3901	A-7
Q4901	A-6
Transistor & Resistor	
QR3902	B-2
QR3903	C-2
QR3904	B-2
Integrated Circuit	
IC3901	B-1
IC3902	B-7
IC4901	B-7
IC4902	B-4
Adjustment	
VR2010	C-5
Connector	
P4901	C-1

ADDRESS INFORMATION

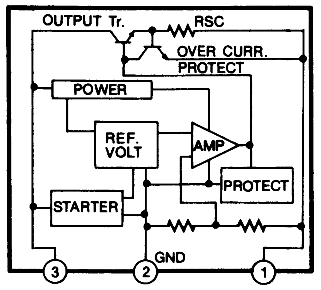

R4915
R4913
R4914
R4912
J3901
AV21PIN
15
9
5
1
16
10
6
2
C4912
R4911
R4910
C4911
R3907
R4903
C4904
R4902
C4903
R3902
AUDIO IN CH1(L)
VIDEO IN
AUDIO OUT CH2(R)
AUDIO OUT CH1(L)
VIDEO OUT
R4907
C4906
R4906
C4905
R3901
C4921
C4928
C4920
C4927
VR2010
V-LOCK
IC4902
OUT IN
1 2 3
C4932
SW4901
OFF ON
TEST SW
R4940
R4938
R3917
R4926
R4933
R4928
R4934
R4927
R4939
R4924
R4925
C4933
C4918
IC4901
24
20
15
13
1
5
10
12
R4941
R4935
R4931
R4932
R4936
R4937
C4922
IC3902
Q4901
L3901
D3903
R3914
C3922
C3924
R3913
X3901
R4942
D4901
C4929
L3902
R3916
R3918
C3923
C3925
C3921
Q3901
C B E
R3911
15
20
25
30
34
3
4
5
6
7

IC BLOCK

IC3902 (BA7004)


(TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
1
2
3
4
5

IC4902 (μPC78L06T)

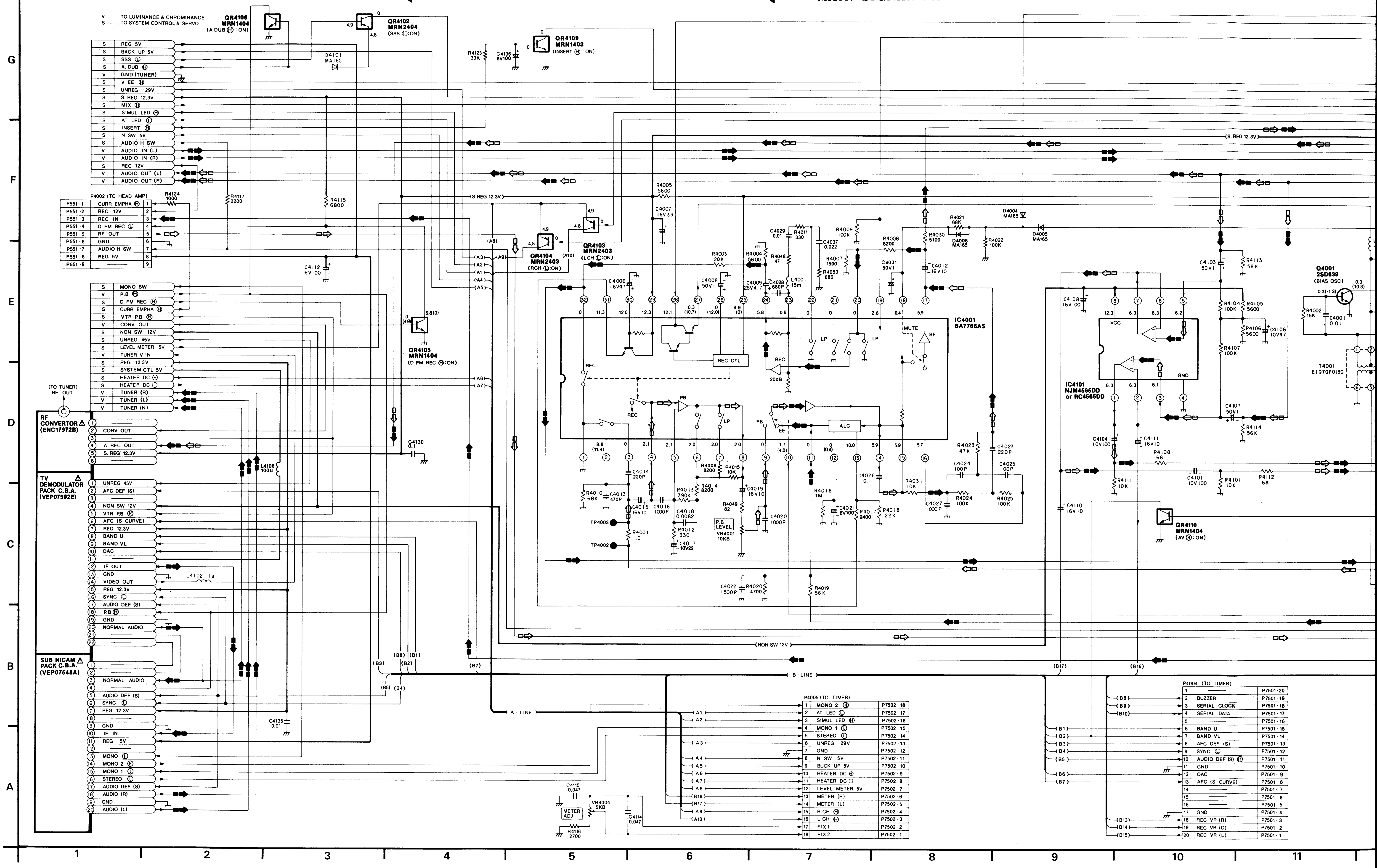

OUTPUT Tr.
RSC
OVER CURR. PROTECT
POWER
REF. VOLT
AMP
PROTECT
STARTER
GND
3
2
1

Next Page:
AUDIO Section

3-16. AUDIO SCHEMATIC DIAGRAM

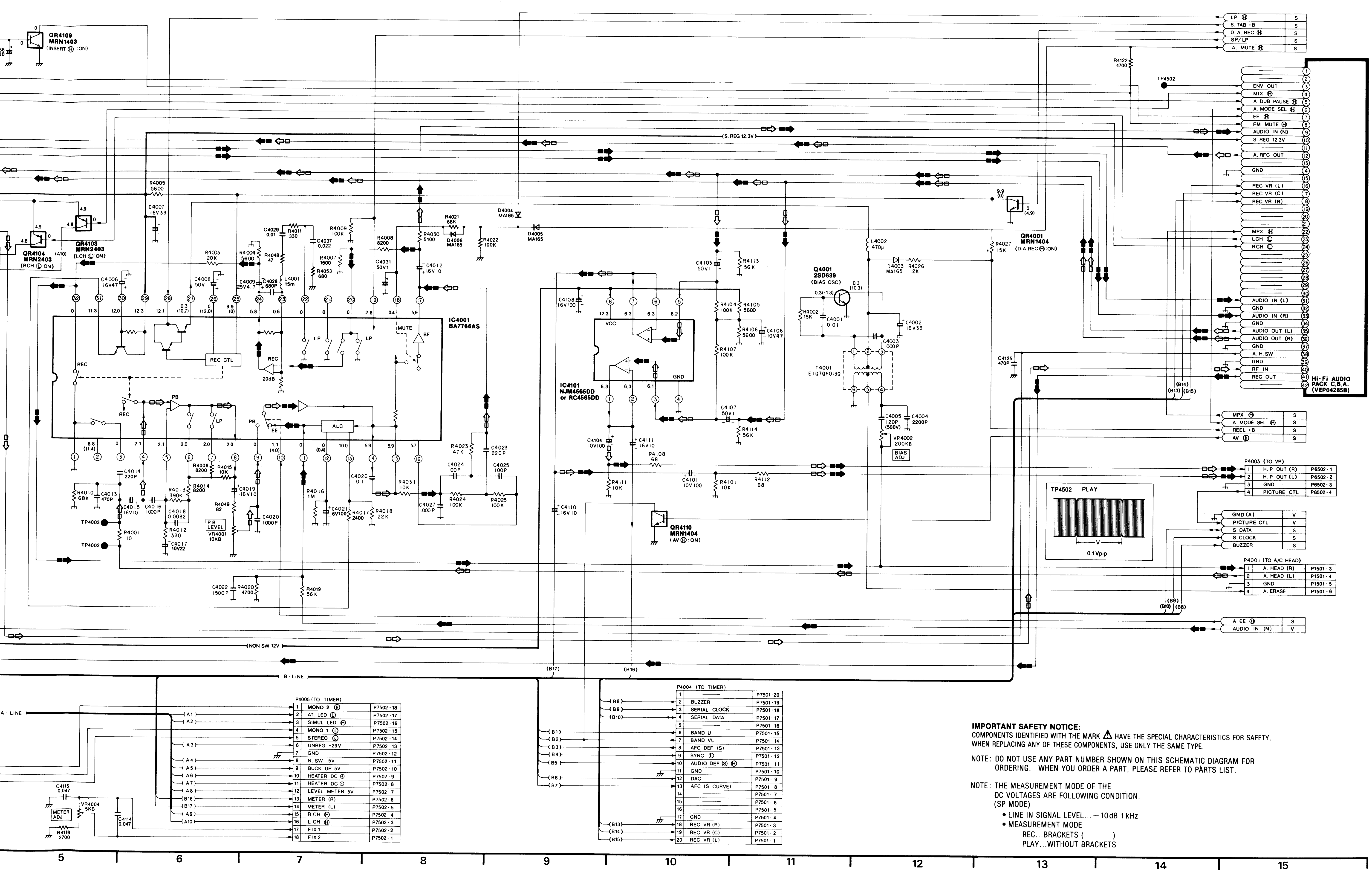
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE


V ....TO LUMINANCE & CHROMINANCE
S ....TO SYSTEM CONTROL & SERVO
S REG 5V
S BACK UP 5V
S SSS Ⓛ
S A. DUB Ⓗ
V GND (TUNER)
S V. EE Ⓗ
S UNREG -29V
S S. REG 12.3V
S MIX Ⓗ
S SIMUL LED Ⓗ
S AT LED Ⓛ
S INSERT Ⓗ
S N. SW 5V
S AUDIO H SW
V AUDIO IN (L)
V AUDIO IN (R)
S REC 12V
V AUDIO OUT (L)
V AUDIO OUT (R)
P4002 (TO HEAD AMP)
P551-1 CURR EMPHA Ⓗ 1
P551-2 REC 12V 2
P551-3 REC IN 3
P551-4 D. FM REC Ⓛ 4
P551-5 RF OUT 5
P551-6 GND 6
P551-7 AUDIO H SW 7
P551-8 REG 5V 8
P551-9 9
S MONO SW
V P.B Ⓗ
S D. FM REC Ⓗ
S CURR EMPHA Ⓗ
S VTR P.B Ⓗ
V CONV OUT
S NON SW 12V
S UNREG 45V
S LEVEL METER 5V
S TUNER V IN
S REG 12.3V
S SYSTEM CTL 5V
S HEATER DC ⊕
S HEATER DC ⊖
V TUNER (R)
V TUNER (L)
V TUNER (N)
(TO TUNER) RF OUT
RF CONVERTOR ⚠ (ENC17972B)
1
2 CONV OUT
3
4 A. RFC OUT
5 S. REG 12.3V
6
TV DEMODULATOR PACK C.B.A. ⚠ (VEP07592E)
1 UNREG 45V
2 AFC DEF (S)
3
4 NON SW 12V
5 VTR P.B Ⓗ
6 AFC (S CURVE)
7 REG 12.3V
8 BAND U
9 BAND VL
10 DAC
11
12 IF OUT
13 GND
14 VIDEO OUT
15 REG 12.3V
16 SYNC Ⓛ
17 AUDIO DEF (S)
18 P.B Ⓗ
19 GND
20 NORMAL AUDIO
21
22
SUB NICAM PACK C.B.A. ⚠ (VEP07548A)
1
2
3 NORMAL AUDIO
4
5 AUDIO DEF (S)
6 SYNC Ⓛ
7 REG 12.3V
8
9 GND
10 IF IN
11 REG 5V
12
13 MONO Ⓗ
14 MONO 2 Ⓗ
15 MONO 1 Ⓛ
16 STEREO Ⓛ
17 AUDIO DEF (S)
18 AUDIO (R)
19 GND
20 AUDIO (L)
QR4108 MRN1404 (A.DUB Ⓗ:ON)
QR4102 MRN2404 (SSS Ⓛ:ON)
QR4109 MRN1403 (INSERT Ⓗ:ON)
QR4103 MRN2403 (LCH Ⓛ:ON)
QR4104 MRN2403 (RCH Ⓛ:ON)
QR4105 MRN1404 (D. FM REC Ⓗ:ON)
QR4110 MRN1404 (AV Ⓗ:ON)
D4101 MA165
R4123 33K
C4136 6V100
R4124 1000
R4117 2200
R4115 6800
C4112 6V100
L4106 100μ
C4130 0.1
L4102 1μ
C4135 0.01
(S. REG 12.3V)
(NON SW 12V)
A · LINE
B · LINE
(A1) (A2) (A3) (A4) (A5) (A6) (A7) (A8) (A9) (A10)
(B1) (B2) (B3) (B4) (B5) (B6) (B7) (B8) (B9) (B10) (B13) (B14) (B15) (B16) (B17)
IC4001 BA7766AS
REC
REC CTL
20dB
LP
PB
EE
ALC
MUTE
BF
R4005 5600
C4007 16V33
C4029 0.01
R4011 330
C4037 0.022
R4009 100K
R4008 8200
R4003 20K
R4004 5600
R4048 47
L4001 15m
C4009 25V4.7
C4028 680P
R4007 1500
R4053 680
C4008 50V1
C4006 16V47
C4031 50V1
R4030 5100
C4012 16V10
R4021 68K
D4006 MA165
R4022 100K
D4004 MA165
D4005 MA165
R4010 68K
C4013 470P
C4014 220P
C4015 16V10
C4016 1000P
R4013 390K
R4006 8200
R4015 10K
R4014 8200
C4018 0.0082
R4012 330
C4017 10V22
R4001 10
TP4003
TP4002
R4049 82
P.B LEVEL VR4001 10KB
C4019 16V10
C4020 1000P
C4022 1500P
R4020 4700
R4019 56K
R4016 1M
C4021 6V100
R4017 2400
R4018 22K
C4026 0.1
R4031 10K
R4023 47K
C4023 220P
C4024 100P
C4025 100P
C4027 1000P
R4024 100K
R4025 100K
IC4101 NJM4565DD or RC4565DD
VCC
GND
C4108 16V100
C4103 50V1
R4113 56K
R4104 100K
R4105 5600
R4106 5600
C4106 10V47
R4107 100K
C4107 50V1
R4114 56K
C4104 10V100
C4111 16V10
R4108 68
R4111 10K
C4101 10V100
R4101 10K
R4112 68
C4110 16V10
Q4001 2SD639 (BIAS OSC)
R4002 15K
C4001 0.01
T4001 E1Q7QF0130
C4115 0.047
METER ADJ
VR4004 5KB
C4114 0.047
R4116 2700
P4005 (TO TIMER)
1 MONO 2 Ⓗ P7502-18
2 AT. LED Ⓛ P7502-17
3 SIMUL LED Ⓗ P7502-16
4 MONO 1 Ⓛ P7502-15
5 STEREO Ⓛ P7502-14
6 UNREG -29V P7502-13
7 GND P7502-12
8 N. SW 5V P7502-11
9 BUCK UP 5V P7502-10
10 HEATER DC ⊕ P7502-9
11 HEATER DC ⊖ P7502-8
12 LEVEL METER 5V P7502-7
13 METER (R) P7502-6
14 METER (L) P7502-5
15 R CH Ⓗ P7502-4
16 L CH Ⓗ P7502-3
17 FIX 1 P7502-2
18 FIX 2 P7502-1
P4004 (TO TIMER)
1 —— P7501-20
2 BUZZER P7501-19
3 SERIAL CLOCK P7501-18
4 SERIAL DATA P7501-17
5 —— P7501-16
6 BAND U P7501-15
7 BAND VL P7501-14
8 AFC DEF (S) P7501-13
9 SYNC Ⓛ P7501-12
10 AUDIO DEF (S) Ⓗ P7501-11
11 GND P7501-10
12 DAC P7501-9
13 AFC (S CURVE) P7501-8
14 —— P7501-7
15 —— P7501-6
16 —— P7501-5
17 GND P7501-4
18 REC VR (R) P7501-3
19 REC VR (C) P7501-2
20 REC VR (L) P7501-1
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

IGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE


QR4109 MRN1403 (INSERT Ⓗ : ON)
QR4103 MRN2403 (LCH Ⓛ : ON)
QR4104 MRN2403 (RCH Ⓛ : ON)
IC4001 BA7766AS
REC CTL
REC
PB
EE
LP
MUTE
BF
ALC
20dB
P.B LEVEL VR4001 10KB
TP4003
TP4002
IC4101 NJM4565DD or RC4565DD
VCC
GND
Q4001 2SD639 (BIAS OSC)
T4001 E1Q70F0130
VR4002 200KB
BIAS ADJ
QR4001 MRN1404 (D.A.REC Ⓗ : ON)
QR4110 MRN1404 (AV Ⓗ : ON)
D4004 MA165
D4005 MA165
D4006 MA165
D4003 MA165
L4001 15m
L4002 470μ
R4122 4700
TP4502
(S. REG 12.3V)
(NON SW 12V)
B · LINE
A · LINE
LP Ⓗ
S. TAB +B
D. A. REC Ⓗ
SP/LP
A. MUTE Ⓗ
① ——
② ——
③ ENV OUT
④ MIX Ⓗ
⑤ A. DUB PAUSE Ⓗ
⑥ A. MODE SEL Ⓗ
⑦ EE Ⓗ
⑧ FM MUTE Ⓗ
⑨ AUDIO IN (N)
⑩ S. REG 12.3V
⑪ ——
⑫ A. RFC OUT
⑬ ——
⑭ GND
⑮ ——
⑯ REC VR (L)
⑰ REC VR (C)
⑱ REC VR (R)
⑲ ——
⑳ ——
㉑ ——
㉒ MPX Ⓗ
㉓ LCH Ⓛ
㉔ RCH Ⓛ
㉕ ——
㉖ ——
㉗ ——
㉘ ——
㉙ ——
㉚ ——
㉛ AUDIO IN (L)
㉜ GND
㉝ AUDIO IN (R)
㉞ GND
㉟ AUDIO OUT (L)
㊱ AUDIO OUT (R)
㊲ GND
㊳ A. H. SW
㊴ GND
㊵ RF IN
㊶ REC OUT
㊷ ——
Hi·Fi AUDIO PACK C.B.A. (VEP04285B)
MPX Ⓗ S
A. MODE SEL Ⓗ S
REEL +B S
AV Ⓗ S
P4003 (TO VR)
1 H. P OUT (R) P6502 · 1
2 H. P OUT (L) P6502 · 2
3 GND P6502 · 3
4 PICTURE CTL P6502 · 4
TP4502 PLAY
V
0.1Vp-p
GND (A) V
PICTURE CTL V
S. DATA S
S. CLOCK S
BUZZER S
P4001 (TO A/C HEAD)
1 A. HEAD (R) P1501 · 3
2 A. HEAD (L) P1501 · 4
3 GND P1501 · 5
4 A. ERASE P1501 · 6
A. EE Ⓗ S
AUDIO IN (N) V
P4005 (TO TIMER)
1 MONO 2 Ⓗ P7502 · 18
2 AT. LED Ⓛ P7502 · 17
3 SIMUL LED Ⓗ P7502 · 16
4 MONO 1 Ⓛ P7502 · 15
5 STEREO Ⓛ P7502 · 14
6 UNREG -29V P7502 · 13
7 GND P7502 · 12
8 N. SW 5V P7502 · 11
9 BUCK UP 5V P7502 · 10
10 HEATER DC ⊕ P7502 · 9
11 HEATER DC ⊖ P7502 · 8
12 LEVEL METER 5V P7502 · 7
13 METER (R) P7502 · 6
14 METER (L) P7502 · 5
15 R CH Ⓗ P7502 · 4
16 L CH Ⓗ P7502 · 3
17 FIX 1 P7502 · 2
18 FIX 2 P7502 · 1
P4004 (TO TIMER)
1 —— P7501 · 20
2 BUZZER P7501 · 19
3 SERIAL CLOCK P7501 · 18
4 SERIAL DATA P7501 · 17
5 —— P7501 · 16
6 BAND U P7501 · 15
7 BAND VL P7501 · 14
8 AFC DEF (S) P7501 · 13
9 SYNC Ⓛ P7501 · 12
10 AUDIO DEF (S) Ⓗ P7501 · 11
11 GND P7501 · 10
12 DAC P7501 · 9
13 AFC (S CURVE) P7501 · 8
14 —— P7501 · 7
15 —— P7501 · 6
16 —— P7501 · 5
17 GND P7501 · 4
18 REC VR (R) P7501 · 3
19 REC VR (C) P7501 · 2
20 REC VR (L) P7501 · 1
METER ADJ
VR4004 5KB
R4116 2700
C4115 0.047
C4114 0.047
5
6
7
8
9
10
11
12
13
14
15

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

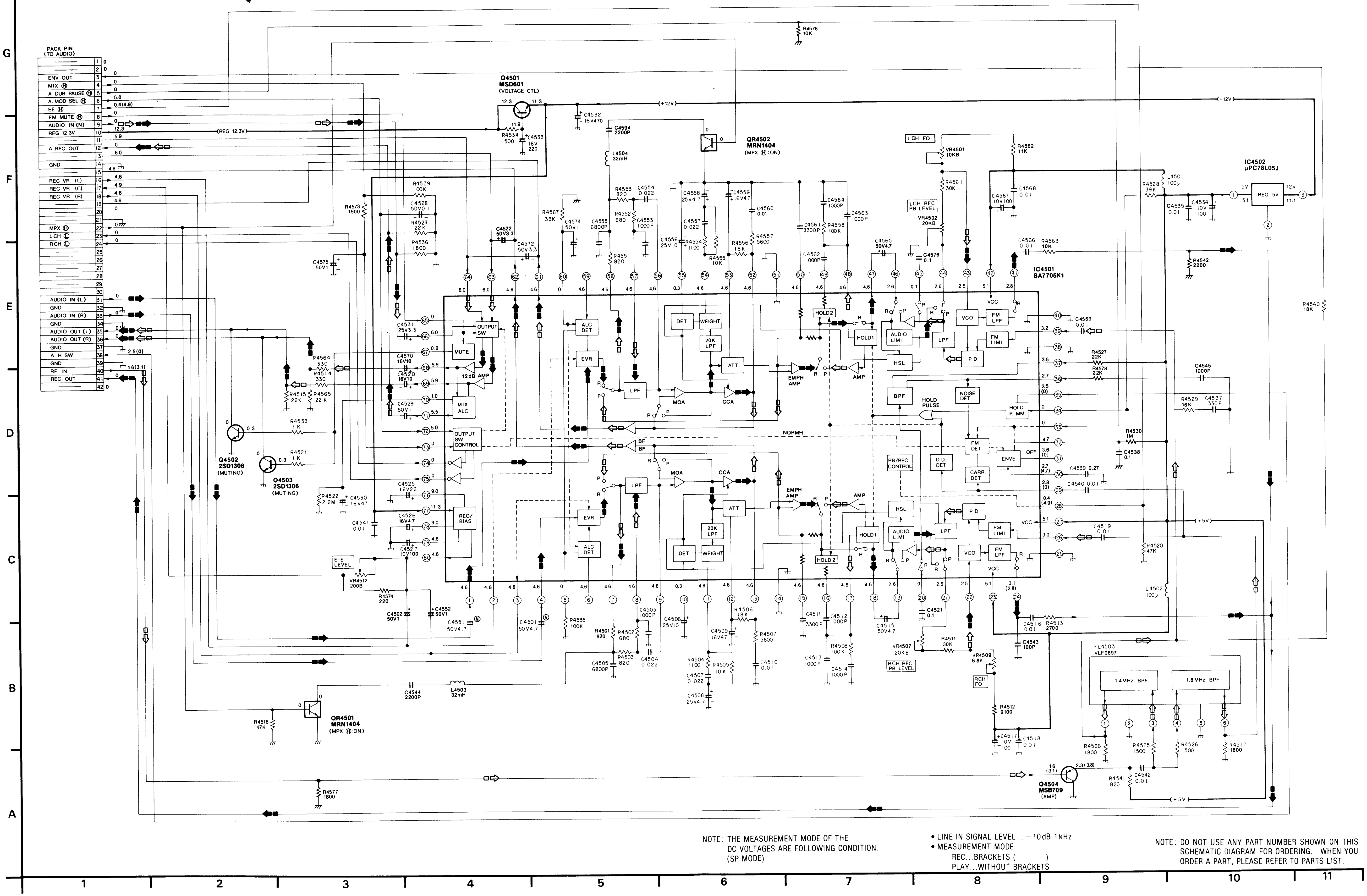
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.
(SP MODE)

- LINE IN SIGNAL LEVEL... −10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS (   )
  PLAY...WITHOUT BRACKETS

3-17. Hi-Fi AUDIO PACK SCHEMATIC DIAGRAM

◀■ MAIN SIGNAL PATH IN REC MODE

◁□ MAIN SIGNAL PATH IN PLAYBACK MODE

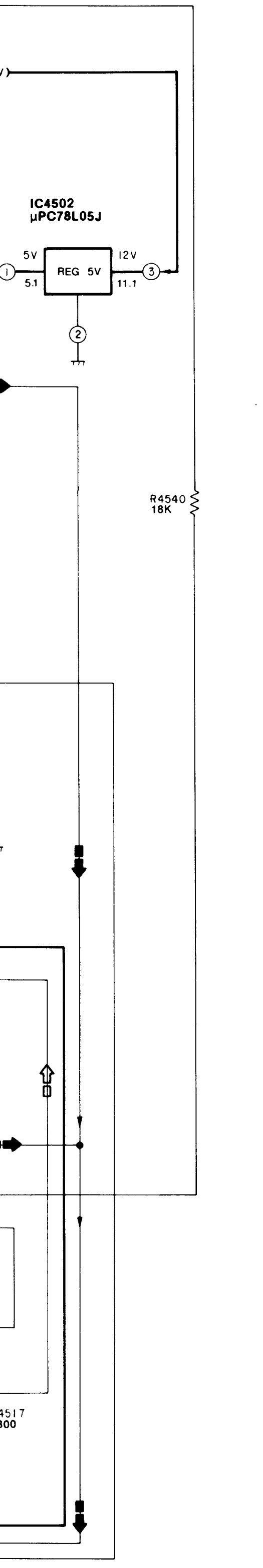

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
PACK PIN (TO AUDIO)
ENV OUT
MIX Ⓗ
A. DUB PAUSE Ⓗ
A. MOD SEL Ⓗ
EE Ⓗ
FM MUTE Ⓗ
AUDIO IN (N)
REG 12.3V
A RFC OUT
GND
REC VR (L)
REC VR (C)
REC VR (R)
MPX Ⓗ
LCH Ⓛ
RCH Ⓛ
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
A. H. SW
RF IN
REC OUT
(REG 12.3V)
(+12V)
(+5V)
Q4501 MSD601 (VOLTAGE CTL)
QR4502 MRN1404 (MPX Ⓗ:ON)
QR4501 MRN1404 (MPX Ⓗ:ON)
Q4502 2SD1306 (MUTING)
Q4503 2SD1306 (MUTING)
Q4504 MSB709 (AMP)
IC4502 μPC78L05J
REG 5V
IC4501 BA7705K1
LCH FO
LCH REC PB LEVEL
RCH REC PB LEVEL
RCH FO
E-E LEVEL
VR4501 10KB
VR4502 20KB
VR4507 20KB
VR4509 6.8K
VR4512 200B
FL4503 VLF0697
1.4MHz BPF
1.8MHz BPF
L4501 100μ
L4502 100μ
L4503 32mH
L4504 32mH
OUTPUT SW
MUTE
12dB AMP
MIX ALC
OUTPUT SW CONTROL
REG/ BIAS
ALC DET
EVR
LPF
MOA
CCA
DET
WEIGHT
20K LPF
ATT
EMPH AMP
AMP
HOLD1
HOLD2
HSL
AUDIO LIMI
VCO
FM LPF
FM LIMI
PD
BPF
HOLD PULSE
NOISE DET
HOLD P. MM
FM DET
ENVE
CARR DET
D.D. DET
PB/REC CONTROL
NORMH
BF
VCC
OFF

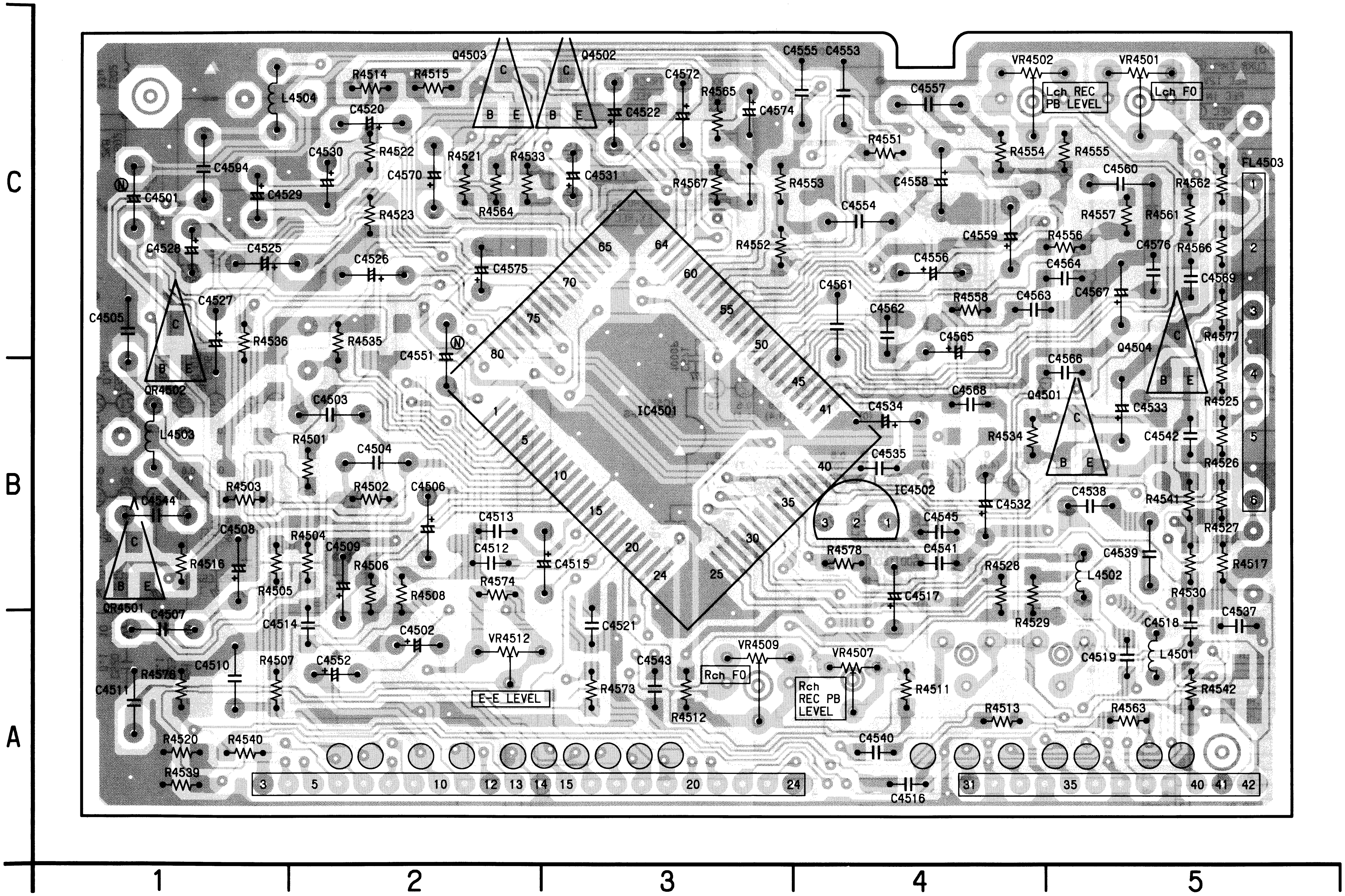
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION. (SP MODE)

- LINE IN SIGNAL LEVEL...−10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS (　　　)
  PLAY...WITHOUT BRACKETS

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-18. Hi-Fi AUDIO PACK C.B.A. (VEP04285B)


IC4502
μPC78L05J
5V
5.1
REG 5V
12V
11.1
R4540
18K


C
B
A
1
2
3
4
5
Q4503
Q4502
Q4501
Q4504
QR4501
QR4502
IC4501
IC4502
L4504
L4503
L4502
L4501
FL4503
VR4502
VR4501
VR4512
VR4509
VR4507
Lch REC PB LEVEL
Lch F0
Rch F0
Rch REC PB LEVEL
E-E LEVEL
R4514
R4515
R4522
R4523
R4521
R4533
R4564
R4565
R4567
R4553
R4551
R4552
R4554
R4555
R4557
R4561
R4562
R4556
R4566
R4558
R4577
R4525
R4526
R4527
R4541
R4517
R4530
R4542
R4563
R4513
R4511
R4528
R4529
R4578
R4534
R4536
R4535
R4501
R4503
R4502
R4504
R4505
R4506
R4508
R4516
R4507
R4574
R4573
R4512
R4576
R4520
R4540
R4539
C4501
C4594
C4529
C4530
C4520
C4570
C4531
C4522
C4572
C4574
C4555
C4553
C4557
C4560
C4558
C4554
C4559
C4556
C4564
C4576
C4569
C4567
C4563
C4561
C4562
C4565
C4566
C4568
C4533
C4542
C4534
C4535
C4532
C4538
C4545
C4541
C4539
C4517
C4537
C4518
C4519
C4540
C4516
C4528
C4525
C4526
C4575
C4527
C4505
C4551
C4503
C4504
C4506
C4544
C4508
C4509
C4513
C4512
C4515
C4514
C4502
C4507
C4510
C4511
C4552
C4521
C4543
1
5
10
15
20
24
25
30
35
40
41
45
50
55
60
64
65
70
75
80
3
5
10
12
13
14
15
20
24
31
35
40
41
42
1
2
3
4
5
6
C
B
E

Hi-Fi AUDIO PACK C.B.A.	
Transistor	
Q4501	B-5
Q4502	C-3
Q4503	C-2
Q4504	C-5
Transistor & Resistor	
QR4501	B-1
QR4502	B-1
Integrated Circuit	
IC4501	B-3
IC4502	B-4
Adjustment	
VR4501	C-5
VR4502	C-5
VR4507	A-4
VR4509	A-3
VR4512	A-2

ADDRESS INFORMATION

NY PART NUMBER SHOWN ON THIS
GRAM FOR ORDERING. WHEN YOU
PLEASE REFER TO PARTS LIST.

0 11

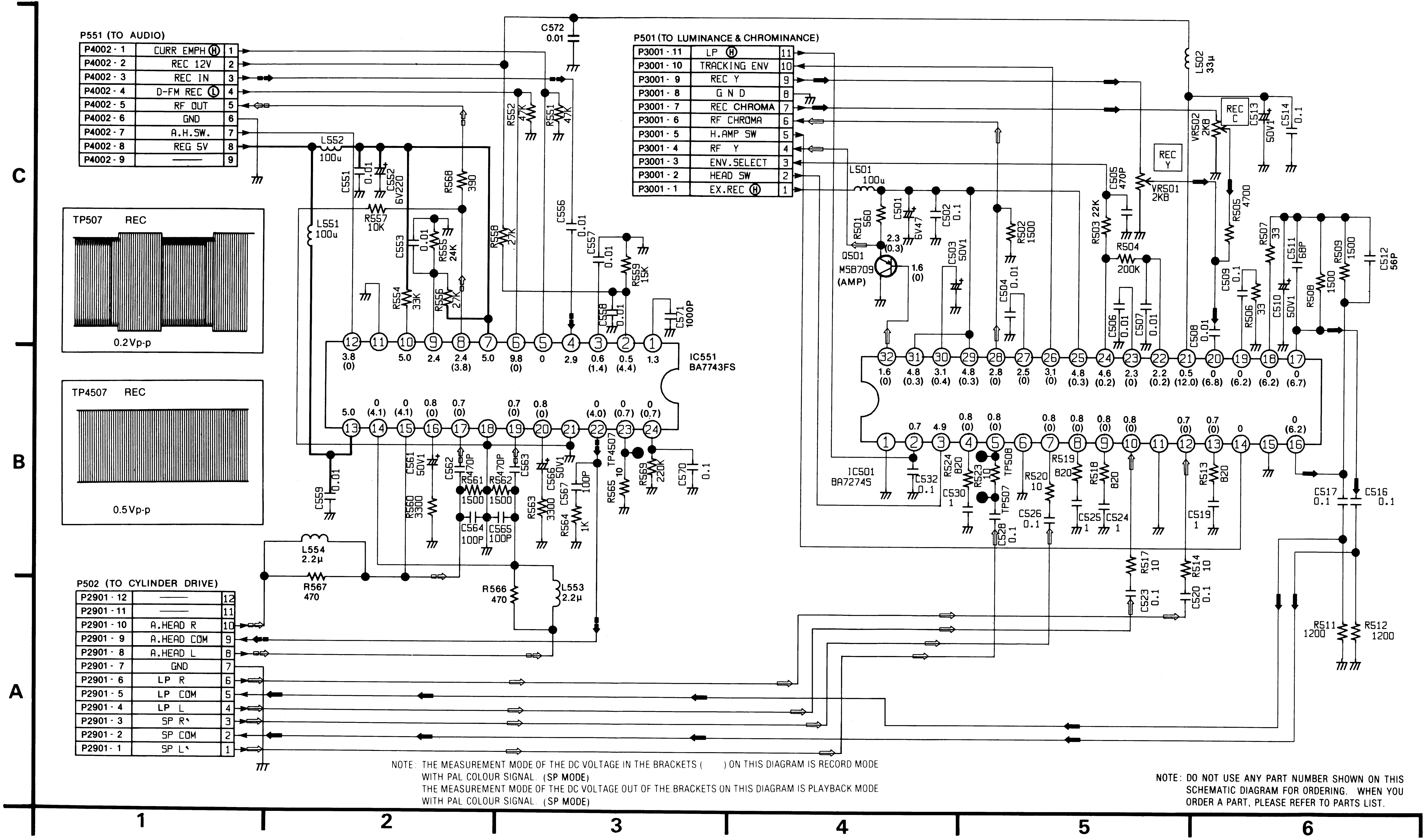
3-19. HEAD AMP SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

Hi-Fi AUDIO MAIN SIGNAL PATH IN REC MODE.

Hi-Fi AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE.


P551 (TO AUDIO)
P4002 - 1 CURR EMPH Ⓗ 1
P4002 - 2 REC 12V 2
P4002 - 3 REC IN 3
P4002 - 4 D-FM REC Ⓛ 4
P4002 - 5 RF OUT 5
P4002 - 6 GND 6
P4002 - 7 A.H.SW. 7
P4002 - 8 REG 5V 8
P4002 - 9 9
P501 (TO LUMINANCE & CHROMINANCE)
P3001 - 11 LP Ⓗ 11
P3001 - 10 TRACKING ENV 10
P3001 - 9 REC Y 9
P3001 - 8 GND 8
P3001 - 7 REC CHROMA 7
P3001 - 6 RF CHROMA 6
P3001 - 5 H.AMP SW 5
P3001 - 4 RF Y 4
P3001 - 3 ENV.SELECT 3
P3001 - 2 HEAD SW 2
P3001 - 1 EX.REC Ⓗ 1
P502 (TO CYLINDER DRIVE)
P2901 - 12 12
P2901 - 11 11
P2901 - 10 A.HEAD R 10
P2901 - 9 A.HEAD COM 9
P2901 - 8 A.HEAD L 8
P2901 - 7 GND 7
P2901 - 6 LP R 6
P2901 - 5 LP COM 5
P2901 - 4 LP L 4
P2901 - 3 SP R 3
P2901 - 2 SP COM 2
P2901 - 1 SP L 1
TP507 REC
0.2Vp-p
TP4507 REC
0.5Vp-p
IC551 BA7743FS
IC501 BA7274S
Q501 MSB709 (AMP)
C572 0.01
L552 100u
L551 100u
L501 100u
L502 33µ
L553 2.2µ
L554 2.2µ
C551 0.01
C552 6V220
R557 10K
R568 390
C553 0.01
R555 24K
R554 33K
R556 27K
R552 47K
R551 47K
R558 27K
C556 0.01
C557 0.01
R559 15K
C558 0.01
C571 1000P
C559 0.01
C561 50V1
C562 470P
C563 470P
R561 1500
R562 1500
R560 3300
R563 3300
C564 100P
C565 100P
C566 50V1
C567 100P
R564 1K
R565 10
TP4507
R569 220K
C570 0.1
R567 470
R566 470
R501 560
C501 6V47
C502 0.1
C503 50V1
R502 1500
C504 0.01
R503 22K
C505 470P
VR501 2KB
R504 200K
C506 0.01
C507 0.01
VR502 2KB
REC C
REC Y
C513 50V1
C514 0.1
R505 4700
C508 0.01
C509 0.1
R506 33
R507 33
C510 50V1
C511 68P
R508 1500
R509 1500
C512 56P
C517 0.1
C516 0.1
R511 1200
R512 1200
C532 0.1
R524 820
R523 10
C530 1
TP508
TP507
C528 0.1
R520 10
C526 0.1
R519 820
R518 820
C525 1
C524 1
R513 820
C519 1
R517 10
C523 0.1
R514 10
C520 0.1
3.8 (0) 5.0 2.4 2.4 (3.8) 5.0 9.8 (0) 0 2.9 0.6 (1.4) 0.5 (4.4) 1.3
5.0 0 (4.1) 0 (4.1) 0.8 (0) 0.7 (0) 0.7 (0) 0.8 (0) 0 (4.0) 0 (0.7) 0 (0.7)
1.6 (0) 4.8 (0.3) 3.1 (0.4) 4.8 (0.3) 2.8 (0) 2.5 (0) 3.1 (0) 4.8 (0.3) 4.6 (0.2) 2.3 (0) 2.2 (0.2) 0.5 (12.0) 0 (6.8) 0 (6.2) 0 (6.2) 0 (6.7)
0.7 4.9 0.8 (0) 0.8 (0) 0.8 (0) 0.8 (0) 0.8 (0) 0.8 (0) 0.7 (0) 0.7 (0) 0 0 (6.2)
2.3 (0.3) 1.6 (0)
C
B
A
1
2
3
4
5
6

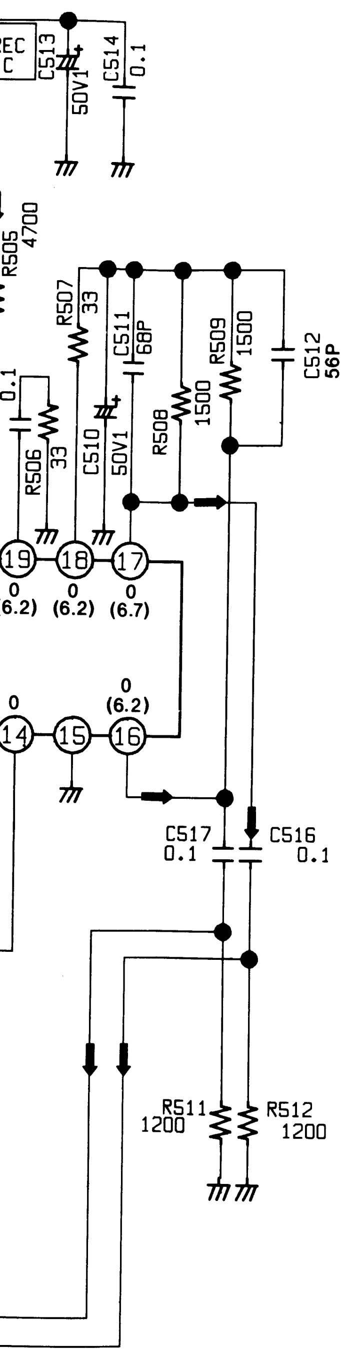
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
Hi-Fi AUDIO Section

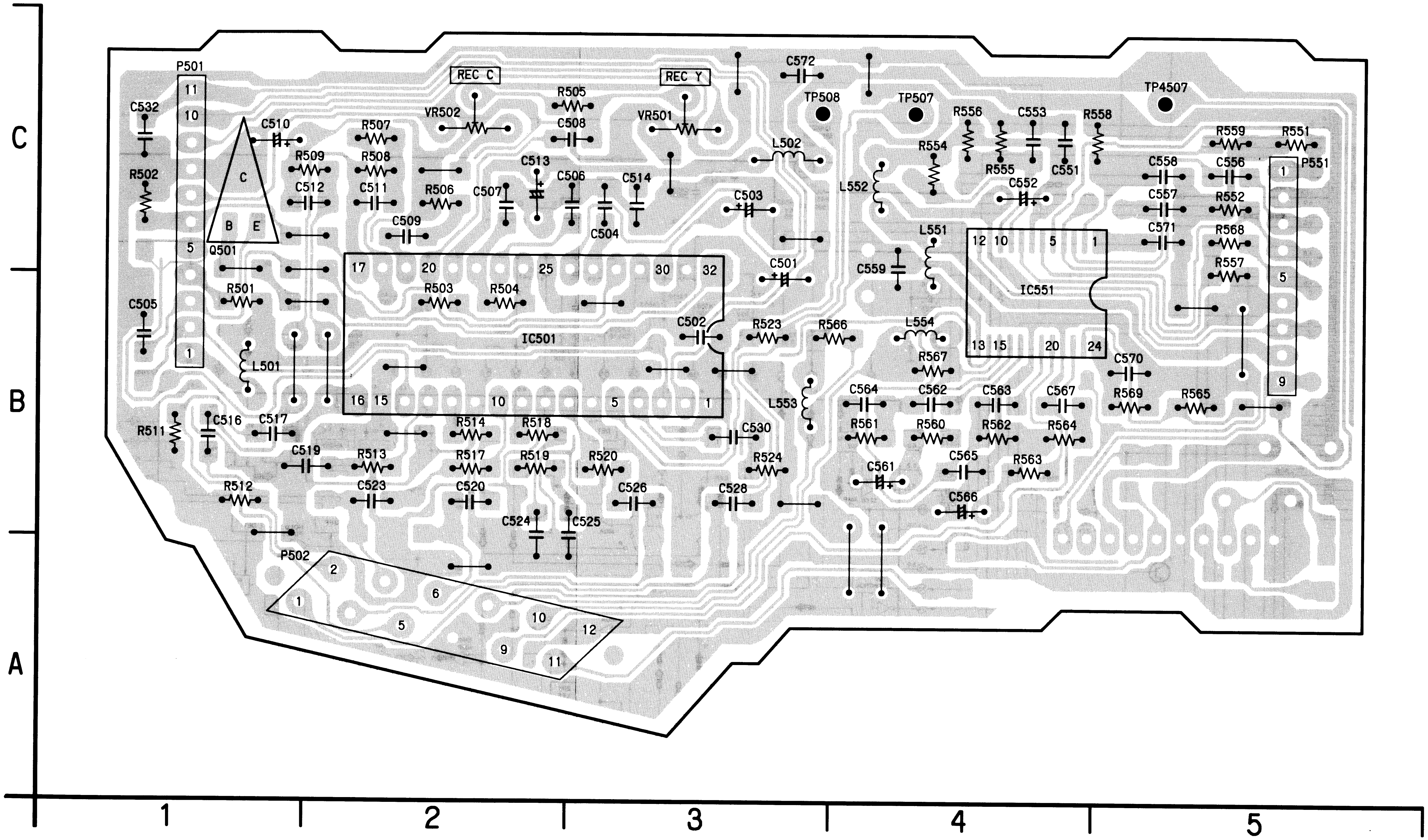
TH IN REC MODE.

TH IN PLAYBACK MODE.


EC
C
C513
50V1
C514
0.1
R505
4700
R507
33
C511
68P
R509
1500
C512
56P
0.1
R506
33
C510
50V1
R508
1500
19
18
17
0
(6.2)
(6.2)
(6.7)
14
15
16
(6.2)
C517
0.1
C516
0.1
R511
1200
R512
1200

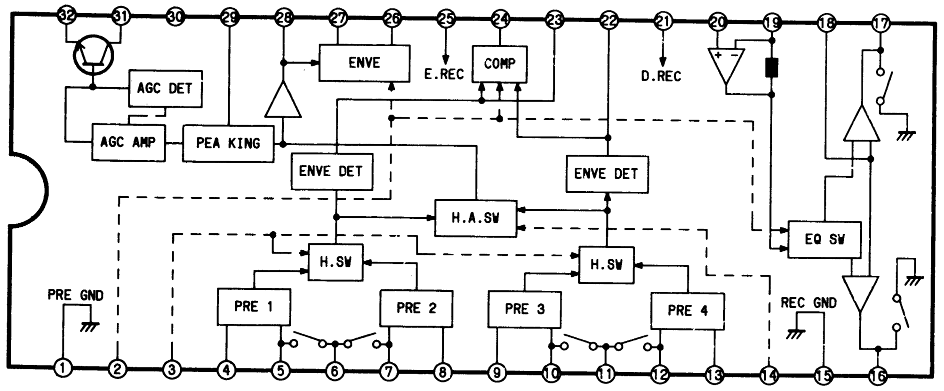
E ANY PART NUMBER SHOWN ON THIS
DIAGRAM FOR ORDERING. WHEN YOU
RT, PLEASE REFER TO PARTS LIST.

3-20. HEAD AMP C.B.A. (VEP05150B)

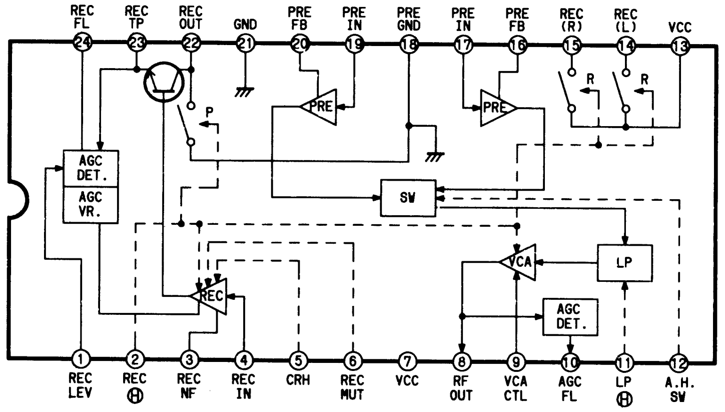

C
B
A
1
2
3
4
5
P501
C532
R502
C505
Q501
C510
B
E
R509
R508
C512
R507
C511
R501
L501
R511
C516
C517
C519
R512
R513
C523
P502
REC C
VR502
R505
C508
C513
C506
R506
C507
C509
C504
C514
R503
R504
IC501
R514
R518
R517
R519
R520
C520
C524
C525
C526
REC Y
VR501
C572
TP508
TP507
L502
C503
C501
C502
R523
R566
C530
R524
C528
L553
L552
L551
C559
L554
R567
C564
C562
C563
C567
R561
R560
R562
R564
C561
C565
R563
C566
R556
R554
R555
C553
C552
C551
R558
TP4507
IC551
C570
R569
R565
R559
R551
C558
C556
C557
R552
C571
R568
R557
P551

IC BLOCK

IC501 (BA7274S)


AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
D.REC
ENVE DET
ENVE DET
H.A.SW
H.SW
H.SW
PRE 1
PRE 2
PRE 3
PRE 4
PRE GND
REC GND
EQ SW

IC551 (BA7743FS)


REC FL
REC TP
REC OUT
GND
PRE FB
PRE IN
PRE GND
PRE IN
PRE FB
REC (R)
REC (L)
VCC
AGC DET.
AGC VR.
PRE
PRE
SW
VCA
LP
AGC DET.
REC
P
R
R
REC LEV
REC Ⓗ
REC NF
REC IN
CRH
REC MUT
VCC
RF OUT
VCA CTL
AGC FL
LP Ⓗ
A.H. SW

HEAD AMP C.B.A.	
Transistor	
Q501	C-1
Integrated Circuit	
IC501 IC551	B-2 B-4
Test Point	
TP507 TP508 TP4507	C-4 C-3 C-5
Adjustment	
VR501 VR502	C-3 C-2
Connector	
P501 P502 P551	C-1 A-2 C-5

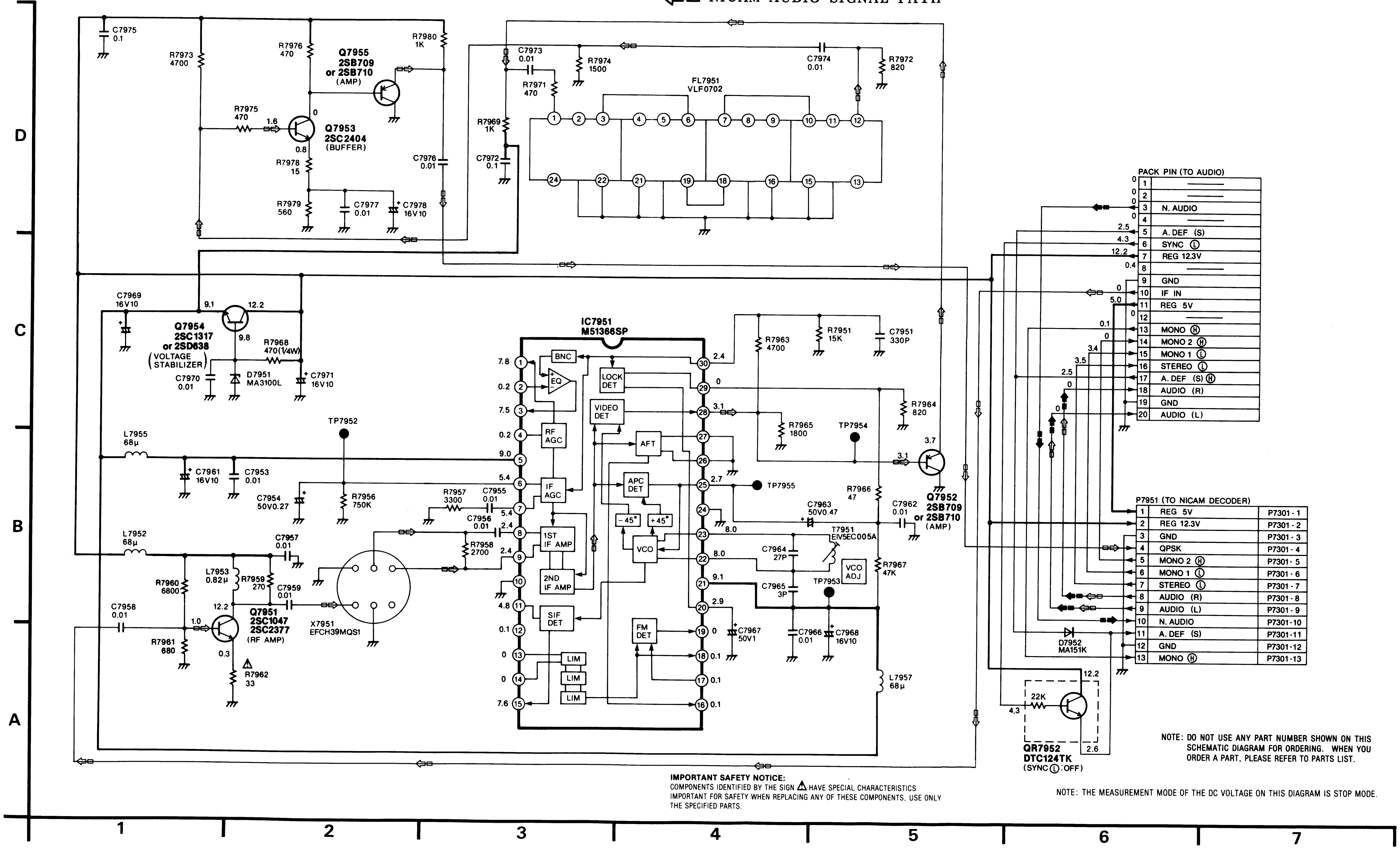
ADDRESS INFORMATION

3-21. SUB NICAM PACK SCHEMATIC DIAGRAM

3-22. S

◀■ NORMAL AUDIO SIGNAL PATH

⇦□ NICAM AUDIO SIGNAL PATH



D
C
B
A
1
2
3
4
5
6
7
C7975 0.1
R7973 4700
R7976 470
R7980 1K
Q7955 2SB709 or 2SB710 (AMP)
R7975 470
1.6
0
Q7953 2SC2404 (BUFFER)
0.8
R7978 15
C7976 0.01
R7979 560
C7977 0.01
C7978 16V10
C7973 0.01
R7974 1500
C7974 0.01
R7972 820
R7971 470
FL7951 VLF0702
R7969 1K
C7972 0.1
C7969 16V10
9.1
12.2
Q7954 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
9.8
R7968 470(1/4W)
C7970 0.01
D7951 MA3100L
C7971 16V10
IC7951 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
APC DET
IF AGC
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
LIM
LIM
7.8
0.2
7.5
0.2
9.0
5.4
5.4
2.4
2.4
4.8
0.1
0
0
7.6
2.4
0
3.1
2.7
8.0
8.0
9.1
2.9
0
0.1
0.1
0.1
R7963 4700
R7951 15K
C7951 330P
R7964 820
R7965 1800
TP7954
TP7952
TP7955
3.7
3.1
Q7952 2SB709 or 2SB710 (AMP)
R7966 47
C7962 0.01
C7963 50V0.47
T7951 EIV5EC005A
C7964 27P
VCO ADJ
TP7953
C7965 3P
R7967 47K
C7966 0.01
C7968 16V10
C7967 50V1
L7957 68µ
L7955 68µ
C7961 16V10
C7953 0.01
C7954 50V0.27
R7956 750K
R7957 3300
C7955 0.01
C7956 0.01
R7958 2700
L7952 68µ
C7957 0.01
L7953 0.82µ
R7959 270
C7959 0.01
R7960 6800
C7958 0.01
1.0
12.2
Q7951 2SC1047 2SC2377 (RF AMP)
R7961 680
0.3
R7962 33
X7951 EFCH39MQS1
2.5
4.3
12.2
0.4
0
5.0
0.1
0
3.4
3.5
2.5
0
0
D7952 MA151K
12.2
22K
4.3
2.6
QR7952 DTC124TK (SYNC Ⓛ:OFF)

PACK PIN (TO AUDIO)

1	——
2	——
3	N. AUDIO
4	——
5	A. DEF (S)
6	SYNC Ⓛ
7	REG 12.3V
8	——
9	GND
10	IF IN
11	REG 5V
12	——
13	MONO Ⓗ
14	MONO 2 Ⓗ
15	MONO 1 Ⓛ
16	STEREO Ⓛ
17	A. DEF (S) Ⓗ
18	AUDIO (R)
19	GND
20	AUDIO (L)

P7951 (TO NICAM DECODER)

1	REG 5V	P7301 - 1
2	REG 12.3V	P7301 - 2
3	GND	P7301 - 3
4	QPSK	P7301 - 4
5	MONO 2 Ⓗ	P7301 - 5
6	MONO 1 Ⓛ	P7301 - 6
7	STEREO Ⓛ	P7301 - 7
8	AUDIO (R)	P7301 - 8
9	AUDIO (L)	P7301 - 9
10	N. AUDIO	P7301 -10
11	A. DEF (S)	P7301 -11
12	GND	P7301 -12
13	MONO Ⓗ	P7301 -13

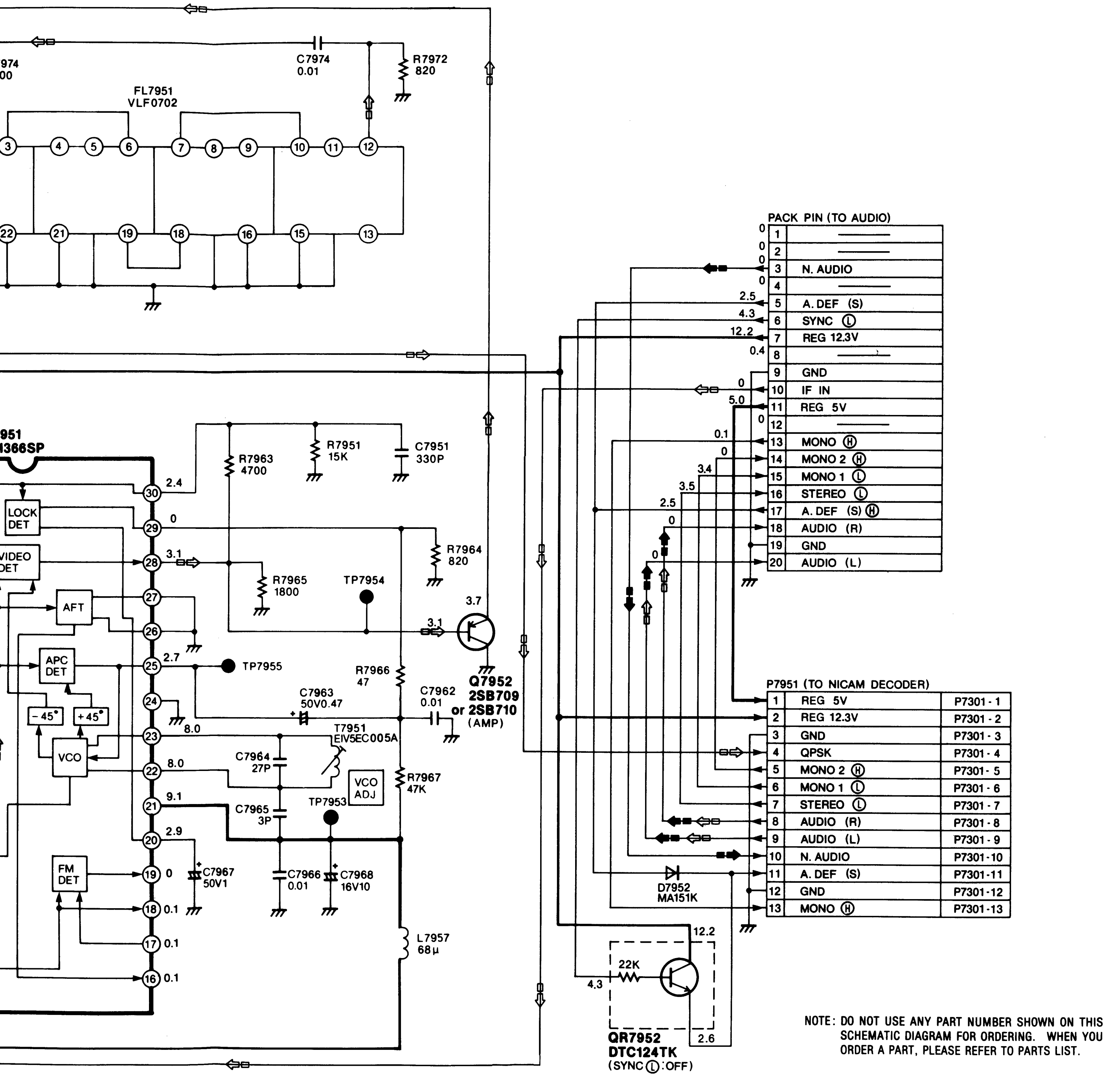
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

◀■ NORMAL AUDIO SIGNAL PATH

◁□ NICAM AUDIO SIGNAL PATH


C7974
0.01
R7972
820
974
00
FL7951
VLF0702
951
1366SP
LOCK DET
VIDEO DET
AFT
APC DET
-45°
+45°
VCO
FM DET
R7963
4700
R7951
15K
C7951
330P
R7964
820
R7965
1800
TP7954
TP7955
R7966
47
C7963
50V0.47
C7962
0.01
T7951
EIV5EC005A
C7964
27P
VCO ADJ
TP7953
R7967
47K
C7965
3P
C7966
0.01
C7967
50V1
C7968
16V10
L7957
68μ
Q7952
2SB709
or 2SB710
(AMP)
PACK PIN (TO AUDIO)
3 N. AUDIO
5 A. DEF (S)
6 SYNC Ⓛ
7 REG 12.3V
9 GND
10 IF IN
11 REG 5V
13 MONO Ⓗ
14 MONO 2 Ⓗ
15 MONO 1 Ⓛ
16 STEREO Ⓛ
17 A. DEF (S) Ⓗ
18 AUDIO (R)
19 GND
20 AUDIO (L)
P7951 (TO NICAM DECODER)
1 REG 5V P7301-1
2 REG 12.3V P7301-2
3 GND P7301-3
4 QPSK P7301-4
5 MONO 2 Ⓗ P7301-5
6 MONO 1 Ⓛ P7301-6
7 STEREO Ⓛ P7301-7
8 AUDIO (R) P7301-8
9 AUDIO (L) P7301-9
10 N. AUDIO P7301-10
11 A. DEF (S) P7301-11
12 GND P7301-12
13 MONO Ⓗ P7301-13
D7952
MA151K
22K
QR7952
DTC124TK
(SYNC Ⓛ:OFF)
4
5
6
7

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

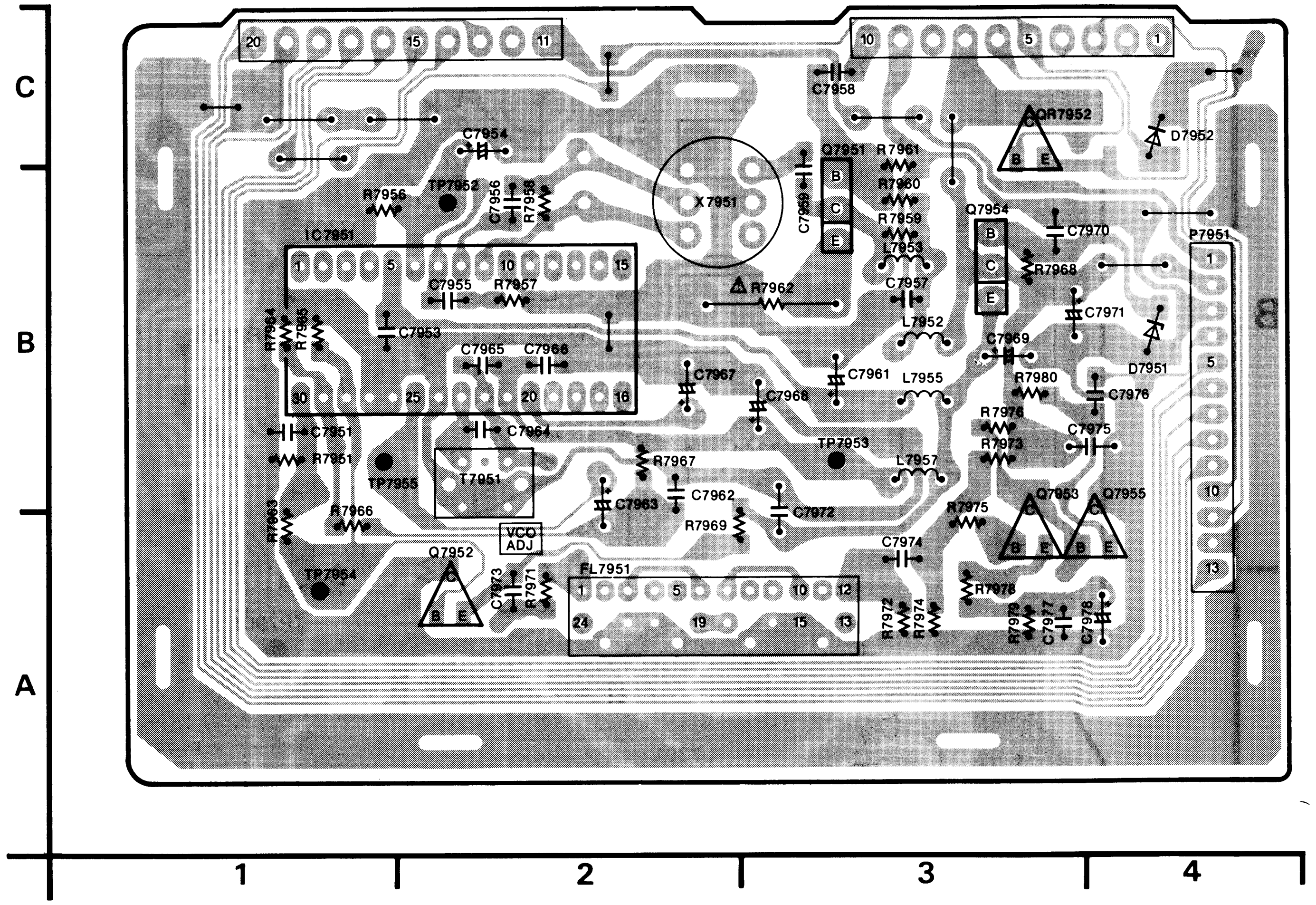
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-22. SUB NICAM PACK C.B.A. (VEP07548A)

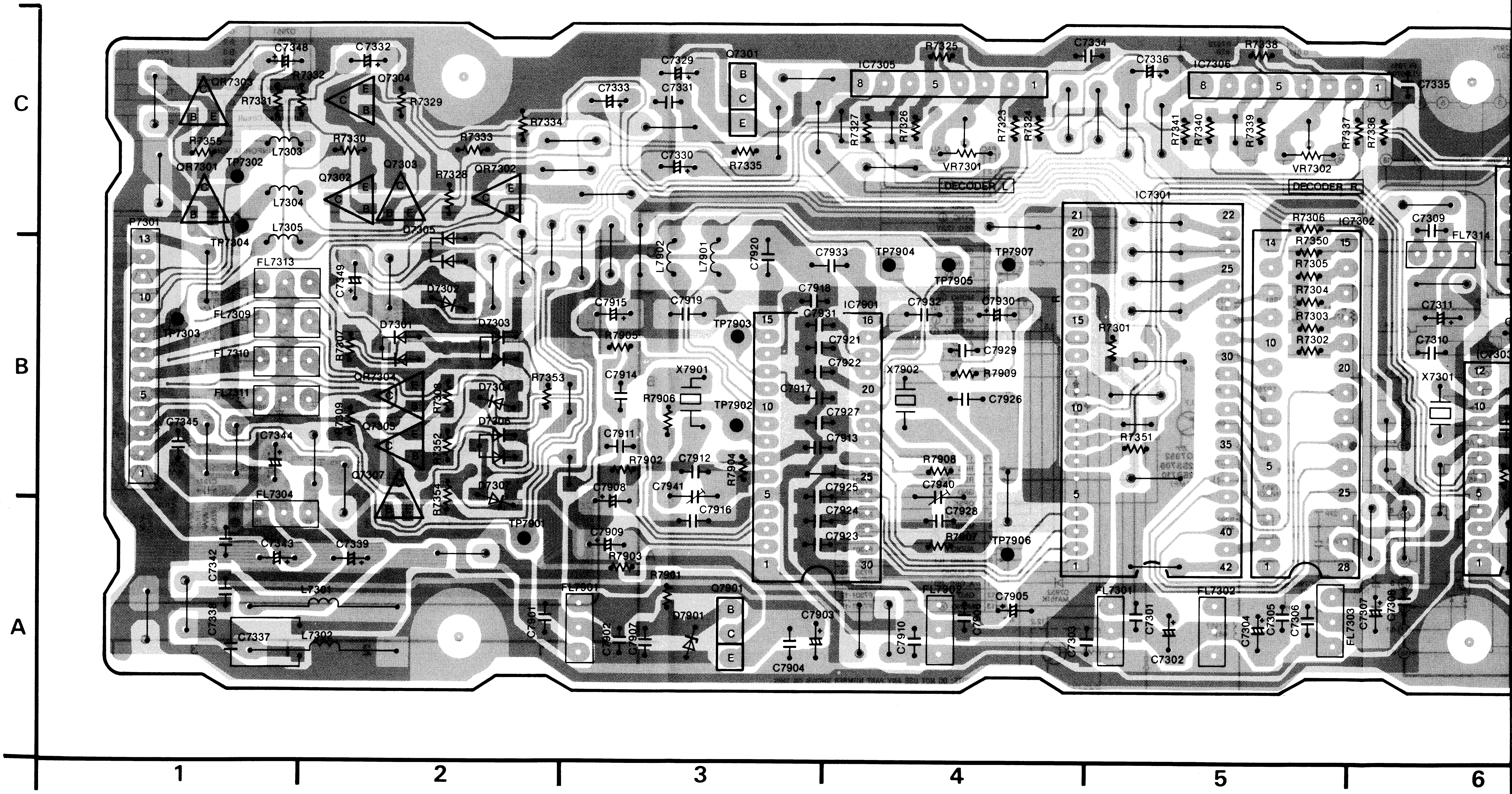
SUB NICAM PACK C.B.A.			
Transistor		**Test Point**	
Q7951	C-3	TP7952	B-2
Q7952	A-2	TP7953	B-3
Q7953	B-3	TP7954	A-1
Q7954	B-3	TP7955	B-1
Q7955	B-4	**Adjustment**	
Transistor & Resistor		T7951	B-2
QR7952	C-3	**Connector**	
Integrated Circuit		P7951	B-4
IC7951	B-1		

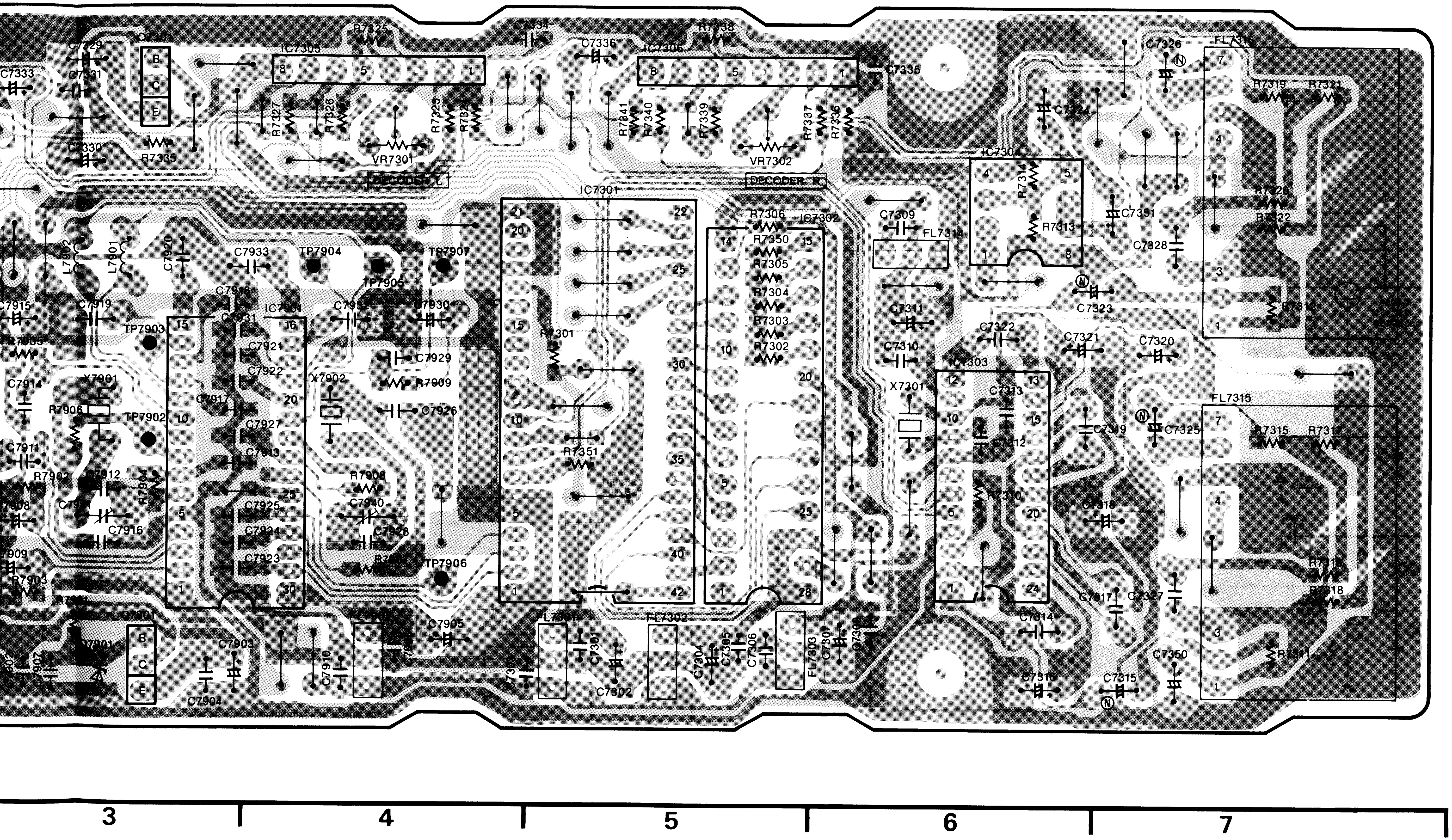
ADDRESS INFORMATION


C
B
A
1
2
3
4
IC7951
X7951
T7951
FL7951
P7951
QR7952
Q7951
Q7952
Q7953
Q7954
Q7955
D7951
D7952
TP7952
TP7953
TP7954
TP7955
VCO ADJ
L7952
L7953
L7955
L7957

Next Page:
NICAM DECODER Section

3-23. NICAM DECODER C.B.A. (VEP07549A)


C
B
A
1
2
3
4
5
6
C7348
C7332
QR7303
R7332
Q7304
R7331
R7329
R7355
L7303
R7330
R7333
R7334
TP7302
QR7301
Q7302
Q7303
R7328
QR7302
L7304
L7305
D7305
TP7304
P7301
FL7313
C7349
D7302
FL7309
TP7303
D7301
D7303
FL7310
R7307
QR7304
R7353
FL7311
R7308
D7304
R7309
Q7305
D7306
C7345
C7344
R7352
Q7307
D7307
R7354
FL7304
TP7901
C7342
C7343
C7339
L7301
C7338
C7337
L7302
C7333
C7329
C7331
Q7301
C7330
R7335
IC7305
R7325
R7327
R7326
R7323
R7324
VR7301
DECODER L
C7334
C7336
IC7306
R7338
C7335
R7341
R7340
R7339
R7337
R7336
VR7302
DECODER R
L7902
L7901
C7920
C7933
TP7904
TP7905
TP7907
C7915
C7919
C7918
C7931
IC7901
C7932
C7930
TP7903
R7905
C7921
C7922
C7929
R7909
C7914
X7901
R7906
C7917
X7902
C7926
TP7902
C7927
C7913
C7911
R7902
C7912
R7904
R7908
C7908
C7941
C7916
C7940
C7925
C7928
C7924
C7923
C7909
R7907
TP7906
R7903
R7901
Q7901
FL7901
C7901
C7902
C7907
D7901
C7903
C7904
C7910
FL7902
C7906
C7905
IC7301
R7301
R7351
FL7301
C7301
C7303
C7302
FL7302
C7304
C7305
C7306
FL7303
C7307
C7308
R7306
IC7302
R7350
R7305
R7304
R7303
R7302
C7309
FL7314
C7311
C7310
X7301
B
C
E

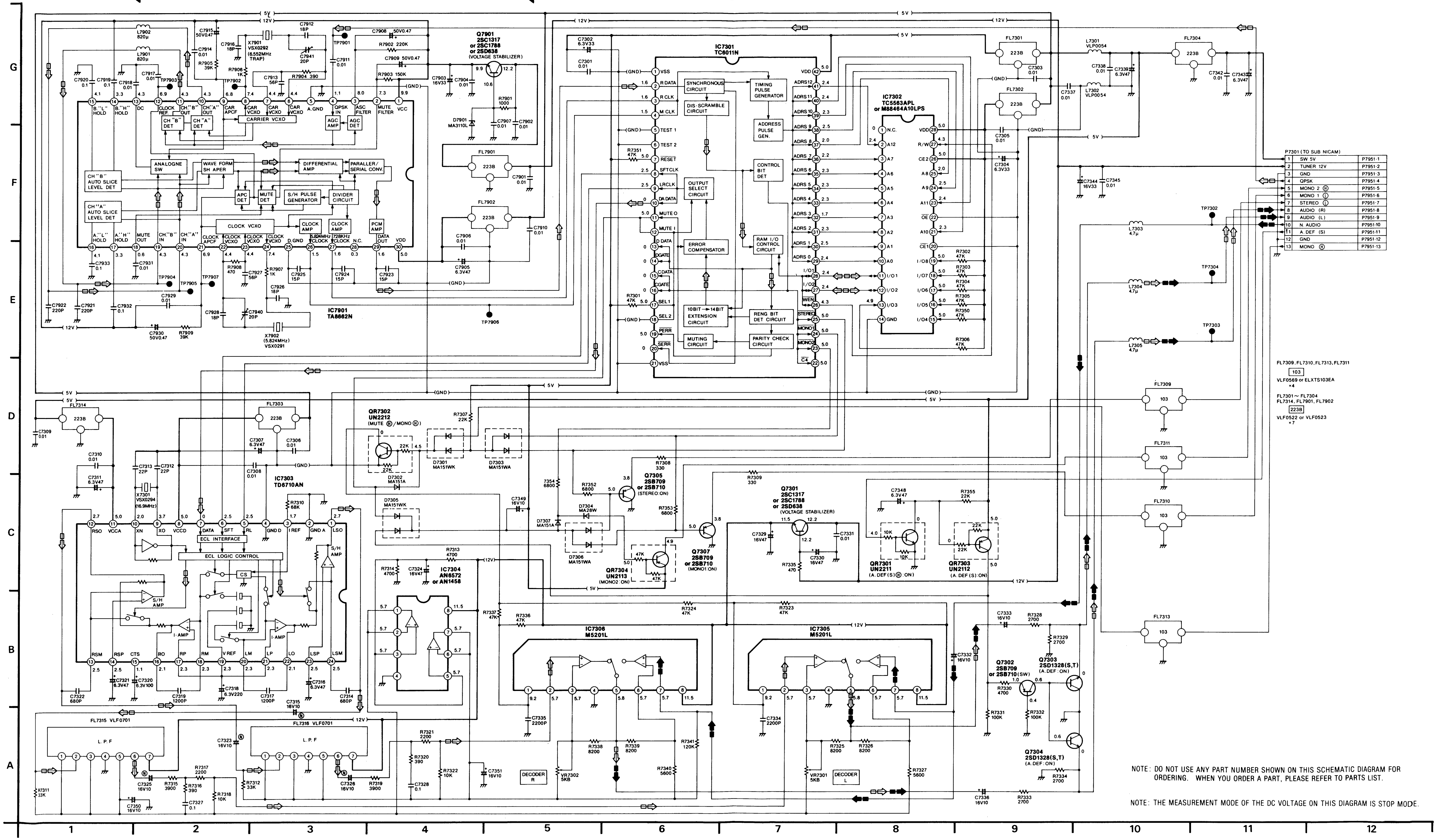

C7329
Q7301
C7333
C7331
B
C
E
C7330
R7335
R7325
IC7305
8
5
1
R7327
R7326
R7323
R7324
VR7301
DECODER L
C7334
C7336
IC7306
R7338
R7341
R7340
R7339
R7337
R7336
VR7302
DECODER R
C7335
C7326
FL7316
C7324
R7319
R7321
IC7304
R7314
R7313
C7351
R7320
R7322
C7328
R7312
C7323
L7902
L7901
C7920
C7933
TP7904
TP7907
TP7905
C7918
C7931
IC7901
C7932
C7930
C7915
C7919
TP7903
R7905
C7921
C7922
C7929
R7909
C7914
X7901
X7902
C7926
R7906
TP7902
C7917
C7927
C7913
C7911
R7902
C7912
R7904
R7908
C7941
C7916
C7925
C7940
C7924
C7928
C7923
R7907
TP7906
R7908
R7909
R7903
R7901
Q7901
C7907
C7902
C7903
C7904
C7910
FL7901
C7908
C7905
IC7301
R7301
R7351
R7306
R7350
R7305
R7304
R7303
R7302
IC7302
C7309
FL7314
C7311
C7310
C7322
C7321
C7320
X7301
IC7303
C7313
C7312
R7310
C7319
C7325
FL7315
R7315
R7317
C7318
R7316
R7318
C7317
C7327
C7314
C7350
R7311
C7316
C7315
FL7301
C7301
C7302
C7303
FL7302
C7304
C7305
C7306
FL7303
C7307
C7308
3
4
5
6
7

NICAM DECODER C.B.A.	
Transistor	
Q7301	C-3
Q7302	C-2
Q7303	C-2
Q7304	C-2
Q7305	B-2
Q7307	B-2
Q7901	A-3
Transistor & Resistor	
QR7301	C-1
QR7302	C-2
QR7303	C-1
QR7304	B-2
Integrated Circuit	
IC7301	B-5
IC7302	B-5
IC7303	B-6
IC7304	C-6
IC7305	C-4
IC7306	C-5
IC7901	B-3
Test Point	
TP7302	C-1
TP7303	B-1
TP7304	B-1
TP7901	A-2
TP7902	B-3
TP7903	B-3
TP7904	B-4
TP7905	B-4
TP7906	A-4
TP7907	B-4
Adjustment	
C7940	A-4
C7941	A-3
VR7301	C-4
VR7302	C-5
Connector	
P7301	B-1

ADDRESS INFORMATION

3-24. NICAM DECODER SCHEMATIC DIAGRAM

◀■ NORMAL AUDIO SIGNAL PATH　　⇦□ NICAM AUDIO SIGNAL PATH



G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
IC7901
TA8662N
X7901
VSX0292
(6.552MHz TRAP)
X7902
(5.824MHz)
VSX0291
Q7901
2SC1317
or 2SC1788
or 2SD638
(VOLTAGE STABILIZER)
D7901
MA3110L
FL7901
FL7902
223B
CARRIER VCXO
ANALOGNE SW
WAVE FORM SH APER
DIFFERENTIAL AMP
PARALLER/ SERIAL CONV
CH "B" AUTO SLICE LEVEL DET
CH "A" AUTO SLICE LEVEL DET
APC DET
MUTE DET
S/H PULSE GENERATOR
DIVIDER CIRCUIT
CLOCK VCXO
CLOCK AMP
PCM AMP
IC7301
TC6011N
SYNCHRONOUS CIRCUIT
DIS-SCRAMBLE CIRCUIT
TIMING PULSE GENERATOR
ADDRESS PULSE GEN.
CONTROL BIT DET
OUTPUT SELECT CIRCUIT
ERROR COMPENSATOR
RAM I/O CONTROL CIRCUIT
10BIT→14BIT EXTENSION CIRCUIT
RENG BIT DET CIRCUIT
MUTING CIRCUIT
PARITY CHECK CIRCUIT
IC7302
TC5563APL
or M58464A10LPS
FL7301
FL7302
FL7303
FL7304
FL7314
L7301
VLP0054
L7302
VLP0054
P7301 (TO SUB NICAM)
1 SW 5V P7951-1
2 TUNER 12V P7951-2
3 GND P7951-3
4 QPSK P7951-4
5 MONO 2 Ⓗ P7951-5
6 MONO 1 Ⓛ P7951-6
7 STEREO Ⓛ P7951-7
8 AUDIO (R) P7951-8
9 AUDIO (L) P7951-9
10 N. AUDIO P7951-10
11 A. DEF (S) P7951-11
12 GND P7951-12
13 MONO Ⓗ P7951-13
TP7302
TP7303
TP7304
TP7906
FL7309, FL7310, FL7313, FL7311
103
VLF0569 or ELXTS103EA
×4
FL7301～FL7304
FL7314, FL7901, FL7902
223B
VLF0522 or VLF0523
×7
QR7302
UN2212
(MUTE Ⓗ/MONO Ⓗ)
D7301
MA151WK
D7303
MA151WA
D7302
MA151A
D7305
MA151WK
D7304
MA28W
D7306
MA151WA
D7307
MA151A
Q7305
2SB709
or 2SB710
(STEREO:ON)
QR7304
UN2113
(MONO2:ON)
Q7307
2SB709
or 2SB710
(MONO1:ON)
Q7301
2SC1317
or 2SC1788
or 2SD638
(VOLTAGE STABILIZER)
QR7301
UN2211
(A.DEF (S) Ⓗ:ON)
QR7303
UN2112
(A.DEF (S):ON)
IC7303
TD6710AN
X7301
VSX0294
(16.9MHz)
ECL INTERFACE
ECL LOGIC CONTROL
S/H AMP
I-AMP
IC7304
AN6572
or AN1458
IC7306
M5201L
IC7305
M5201L
Q7302
2SB709
or 2SB710(SW)
Q7303
2SD1328(S,T)
(A.DEF:ON)
Q7304
2SD1328(S,T)
(A.DEF:ON)
FL7315 VLF0701
FL7316 VLF0701
L.P.F
DECODER R
DECODER L
VR7302
5KB
VR7301
5KB

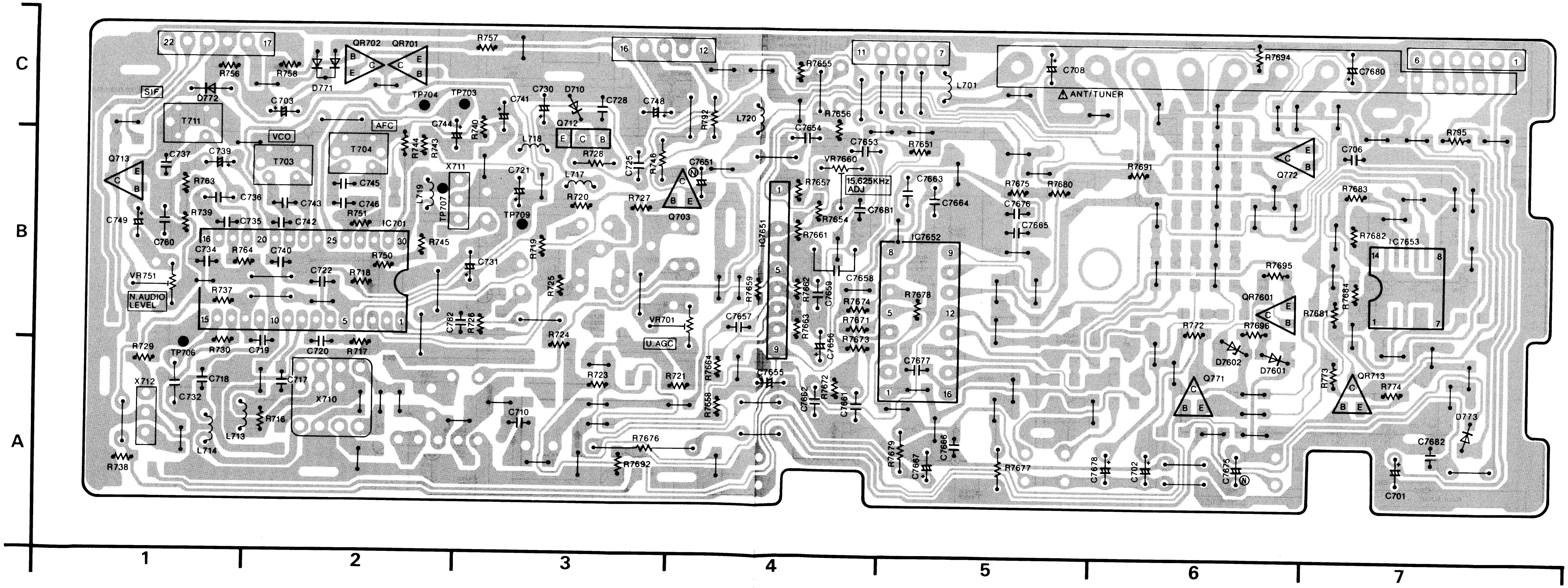
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-25. TV DEMODULATOR PACK C.B.A. (VEP07592E)

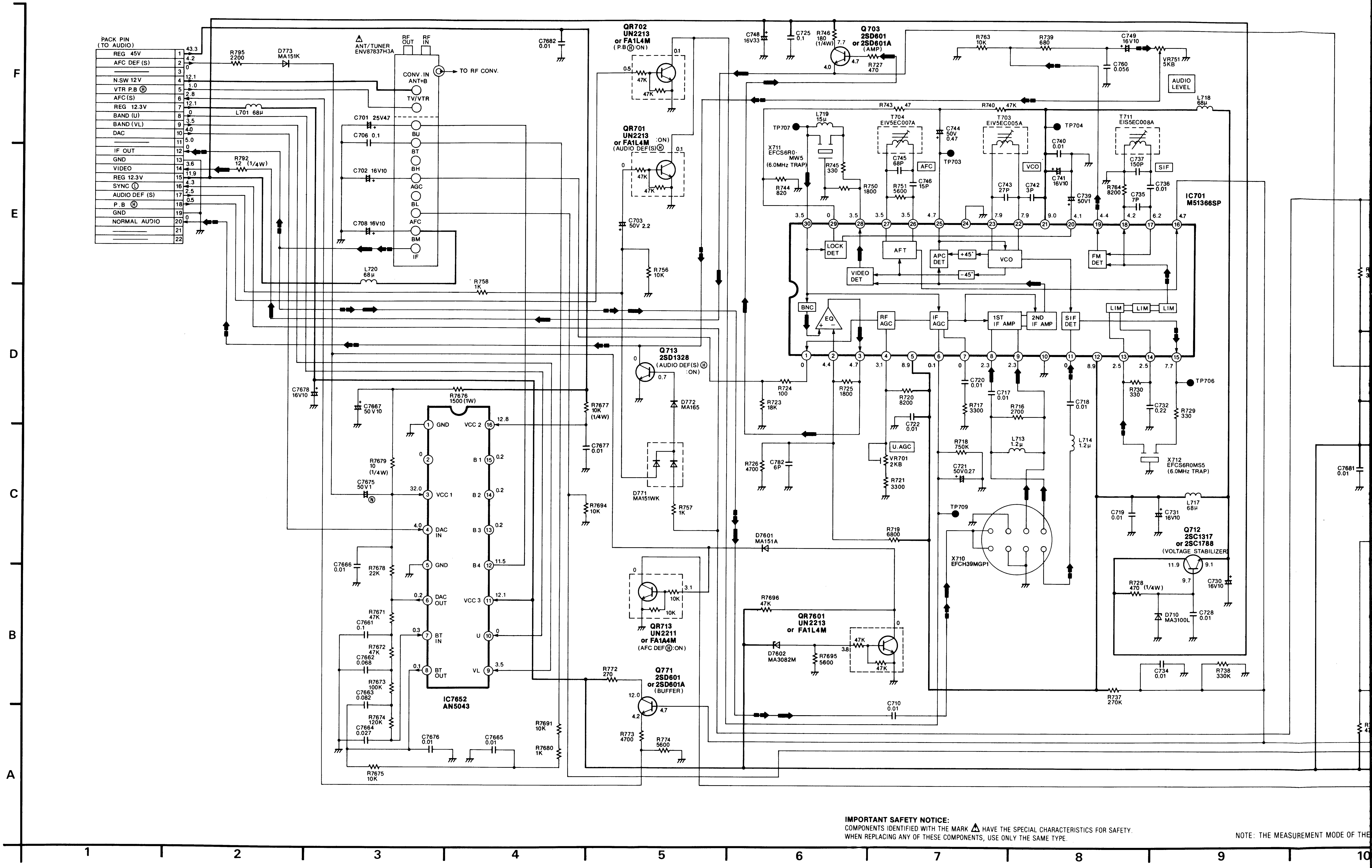
TV DEMODULATOR PACK C.B.A.			
Transistor		**Test Point**	
Q703	B-4	TP703	C-3
Q712	B-3	TP704	C-2
Q713	B-1	TP706	A-1
Q771	B-6	TP707	B-2
Q772	A-6	TP709	B-3
Transistor & Resistor		**Adjustment**	
QR701	C-2	T703	B-2
QR702	C-2	T704	B-2
QR713	A-7	T711	C-1
AR7601	B-6	VR701	B-4
Integrated Circuit		VR751	B-1
IC701	B-2	VR7660	B-4
IC7651	B-4		
IC7652	B-5		
IC7653	A-7		

ADDRESS INFORMATION


C
B
A
1
2
3
4
5
6
7
22
17
16
12
11
7
6
1
SIF
D772
R756
R758
D771
QR702
QR701
R757
T711
VCO
AFC
C703
TP704
TP703
C741
C730
D710
C728
C748
R792
L720
R7655
R7656
L701
C708
ANT/TUNER
R7694
C7680
Q713
C737
C739
T703
T704
C744
R744
R743
R740
L718
Q712
R728
C725
R746
C7651
C7654
C7653
R7651
VR7660
R7657
15.625KHz ADJ
C7663
C7664
C7681
R7691
R7675
R7680
C7676
C7665
Q772
C706
R795
R7683
C749
C760
R763
C736
C743
C735
C742
C745
C746
R751
IC701
X711
L719
TP707
C721
L717
R720
TP709
R727
Q703
R7654
R7661
IC7651
IC7652
R7682
IC7653
C734
R764
C740
R750
R745
C731
R719
C7658
R7695
VR751
N.AUDIO LEVEL
C722
R718
R737
R725
R7659
R7662
C7659
R7674
R7671
R7673
R7678
QR7601
R7681
R7684
C782
R726
VR701
U.AGC
C7657
R7663
C7656
R772
R7696
R729
TP706
R730
C719
C720
R717
R724
R7664
C7677
D7602
D7601
Q771
QR713
R773
R774
X712
C718
C717
X710
R723
R721
C7655
R7672
C7662
C7661
D773
C732
R716
L713
L714
C710
R7658
R7676
R7692
R7679
C7667
C7666
R7677
C7678
C702
C7675
C7682
C701
R738
R739
R7653

Back Page:
NICAM DECODER Section

3-26. TV DEMODULATOR PACK SCHEMATIC DIAGRAM


PACK PIN
(TO AUDIO)
1 REG 45V
2 AFC DEF (S)
3
4 N.SW 12V
5 VTR P.B Ⓗ
6 AFC (S)
7 REG 12.3V
8 BAND (U)
9 BAND (VL)
10 DAC
11
12 IF OUT
13 GND
14 VIDEO
15 REG 12.3V
16 SYNC Ⓛ
17 AUDIO DEF (S)
18 P.B Ⓗ
19 GND
20 NORMAL AUDIO
21
22
R795 2200
D773 MA151K
L701 68μ
R792 12 (1/4W)
ANT/TUNER ENV87837H3A
RF OUT
RF IN
CONV.IN ANT+B
TO RF CONV.
TV/VTR
BU
BT
BH
AGC
BL
AFC
BM
IF
C701 25V47
C706 0.1
C702 16V10
C708 16V10
L720 68μ
R758 1K
C7682 0.01
QR702 UN2213 or FA1L4M (P.BⒽ:ON)
QR701 UN2213 or FA1L4M (AUDIO DEF(S)Ⓗ:ON)
C703 50V 2.2
R756 10K
C748 16V33
C725 0.1
R746 180 (1/4W)
Q703 2SD601 or 2SD601A (AMP)
R727 470
R763 10K
R739 680
C749 16V10
C760 0.056
VR751 5KB
AUDIO LEVEL
L718 68μ
R743 47
R740 47K
TP707
L719 15μ
X711 EFCS6R0-MW5 (6.0MHz TRAP)
R745 330
R744 820
R750 1800
T704 EIV5EC007A
C745 68P
AFC
R751 5600
C746 15P
C744 50V 0.47
TP703
T703 EIV5EC005A
VCO
C743 27P
C742 3P
TP704
C740 0.01
C741 16V10
C739 50V1
T711 EIS5EC008A
C737 150P
SIF
R764 8200
C735 7P
C736 0.01
IC701 M51366SP
LOCK DET
AFT
VIDEO DET
APC DET
+45°
-45°
VCO
FM DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
LIM
LIM
TP706
Q713 2SD1328 (AUDIO DEF(S)Ⓗ:ON)
D772 MA165
D771 MA151WK
R757 1K
R724 100
R723 18K
R725 1800
R720 8200
C722 0.01
C720 0.01
C717 0.01
R717 3300
R716 2700
C718 0.01
L714 1.2μ
R730 330
C732 0.22
R729 330
X712 EFCS6R0MS5 (6.0MHz TRAP)
R726 4700
C782 6P
U.AGC
VR701 2KB
R721 3300
R718 750K
L713 1.2μ
C721 50V0.27
TP709
X710 EFCH39MGP1
R719 6800
C719 0.01
C731 16V10
L717 68μ
Q712 2SC1317 or 2SC1788 (VOLTAGE STABILIZER)
R728 470 (1/4W)
C730 16V10
D710 MA3100L
C728 0.01
C734 0.01
R738 330K
R737 270K
C7681 0.01
C7678 16V10
C7667 50V10
R7676 1500 (1W)
R7677 10K (1/4W)
C7677 0.01
R7679 10 (1/4W)
C7675 50V1
GND
VCC 2
VCC 1
B1
B2
B3
B4
DAC IN
GND
DAC OUT
VCC 3
BT IN
U
BT OUT
VL
IC7652 AN5043
R7694 10K
C7666 0.01
R7678 22K
R7671 47K
C7661 0.1
R7672 47K
C7662 0.068
R7673 100K
C7663 0.082
R7674 120K
C7664 0.027
C7676 0.01
C7665 0.01
R7675 10K
R7691 10K
R7680 1K
QR713 UN2211 or FA1A4M (AFC DEFⒽ:ON)
D7601 MA151A
R7696 47K
QR7601 UN2213 or FA1L4M
D7602 MA3082M
R7695 5600
R772 270
Q771 2SD601 or 2SD601A (BUFFER)
R773 4700
R774 5600
C710 0.01
F
E
D
C
B
A
1
2
3
4
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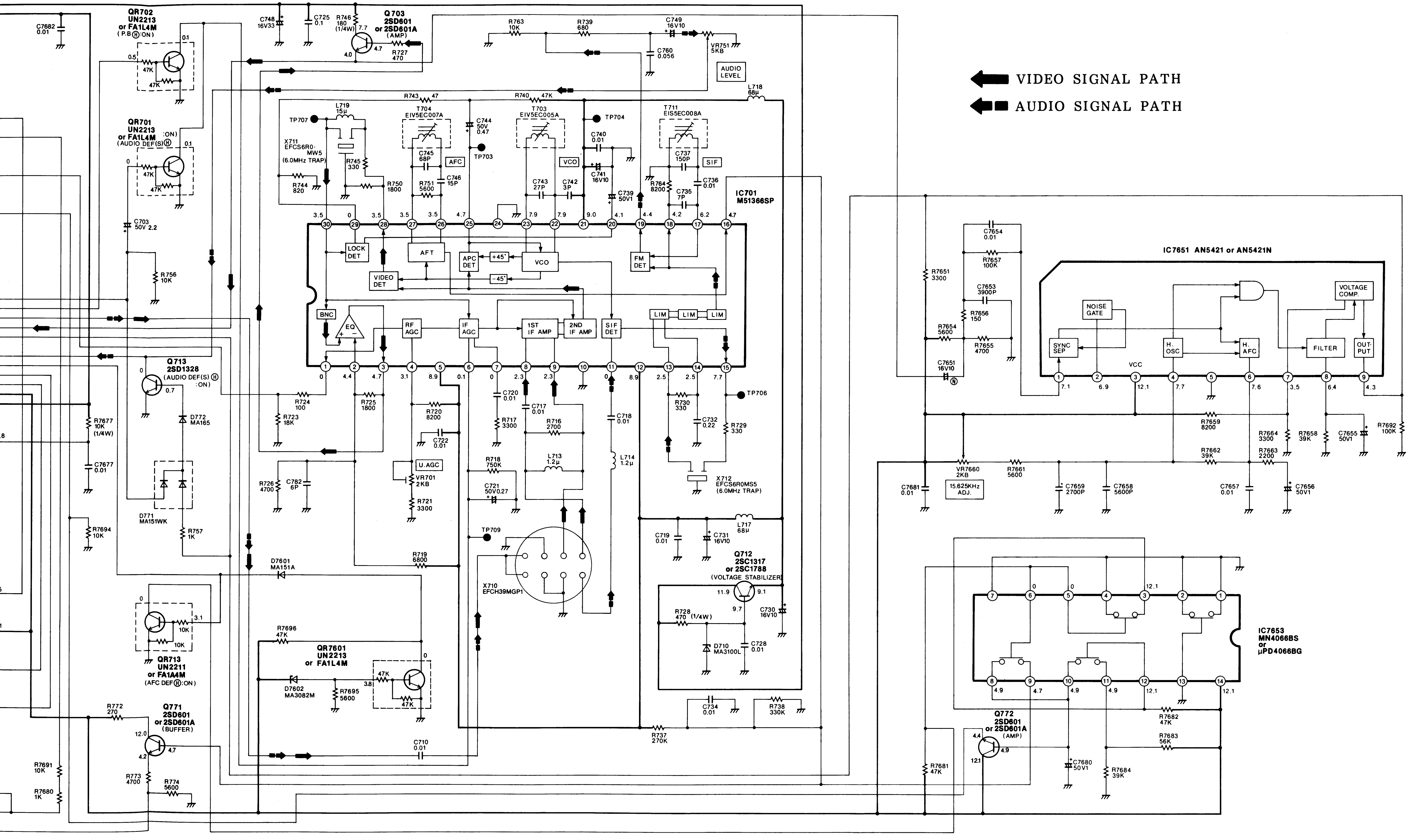
6
7
8
9
10

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
QR702 UN2213 or FA1L4M (P.B Ⓡ:ON)
QR701 UN2213 or FA1L4M (AUDIO DEF(S)Ⓗ :ON)
Q703 2SD601 or 2SD601A (AMP)
Q713 2SD1328 (AUDIO DEF(S)Ⓗ :ON)
QR713 UN2211 or FA1A4M (AFC DEFⒽ:ON)
Q771 2SD601 or 2SD601A (BUFFER)
QR7601 UN2213 or FA1L4M
Q712 2SC1317 or 2SC1788 (VOLTAGE STABILIZER)
Q772 2SD601 or 2SD601A (AMP)
IC701 M51366SP
IC7651 AN5421 or AN5421N
IC7653 MN4066BS or μPD4066BG
T704 EIV5EC007A
T703 EIV5EC005A
T711 EIS5EC008A
X711 EFCS6R0-MW5 (6.0MHz TRAP)
X712 EFCS6R0MS5 (6.0MHz TRAP)
X710 EFCH39MGP1
D772 MA165
D771 MA151WK
D7601 MA151A
D7602 MA3082M
D710 MA3100L
VR751 5KB
AUDIO LEVEL
VR701 2KB
U.AGC
VR7660 2KB
15.625KHz ADJ.
AFC
VCO
SIF
LOCK DET
VIDEO DET
AFT
APC DET
+45°
-45°
FM DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
NOISE GATE
SYNC SEP
H. OSC
H. AFC
FILTER
VOLTAGE COMP.
OUT-PUT
VCC
TP703
TP704
TP706
TP707
TP709
4
5
6
7
8
9
10
11
12
13

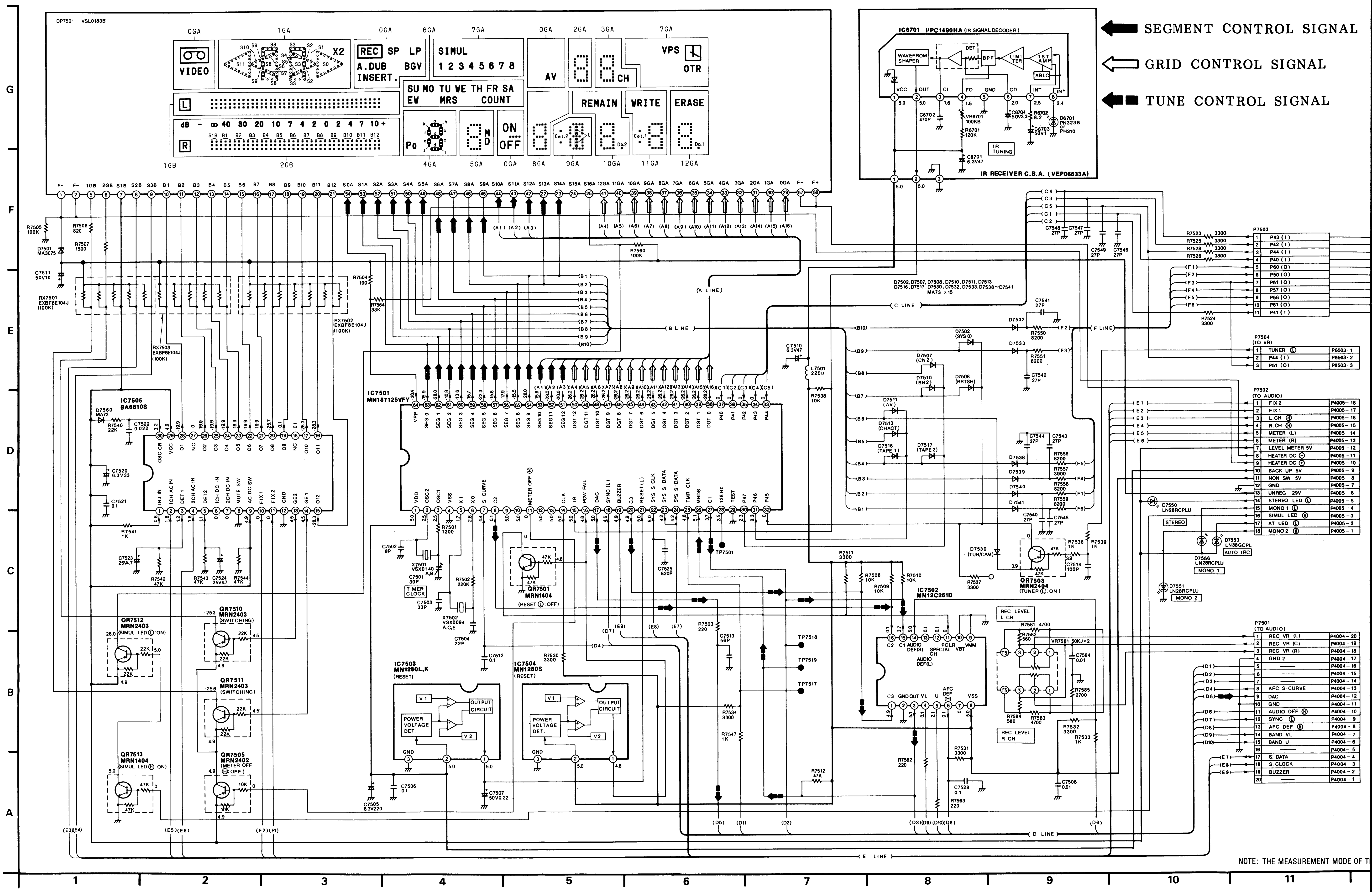
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

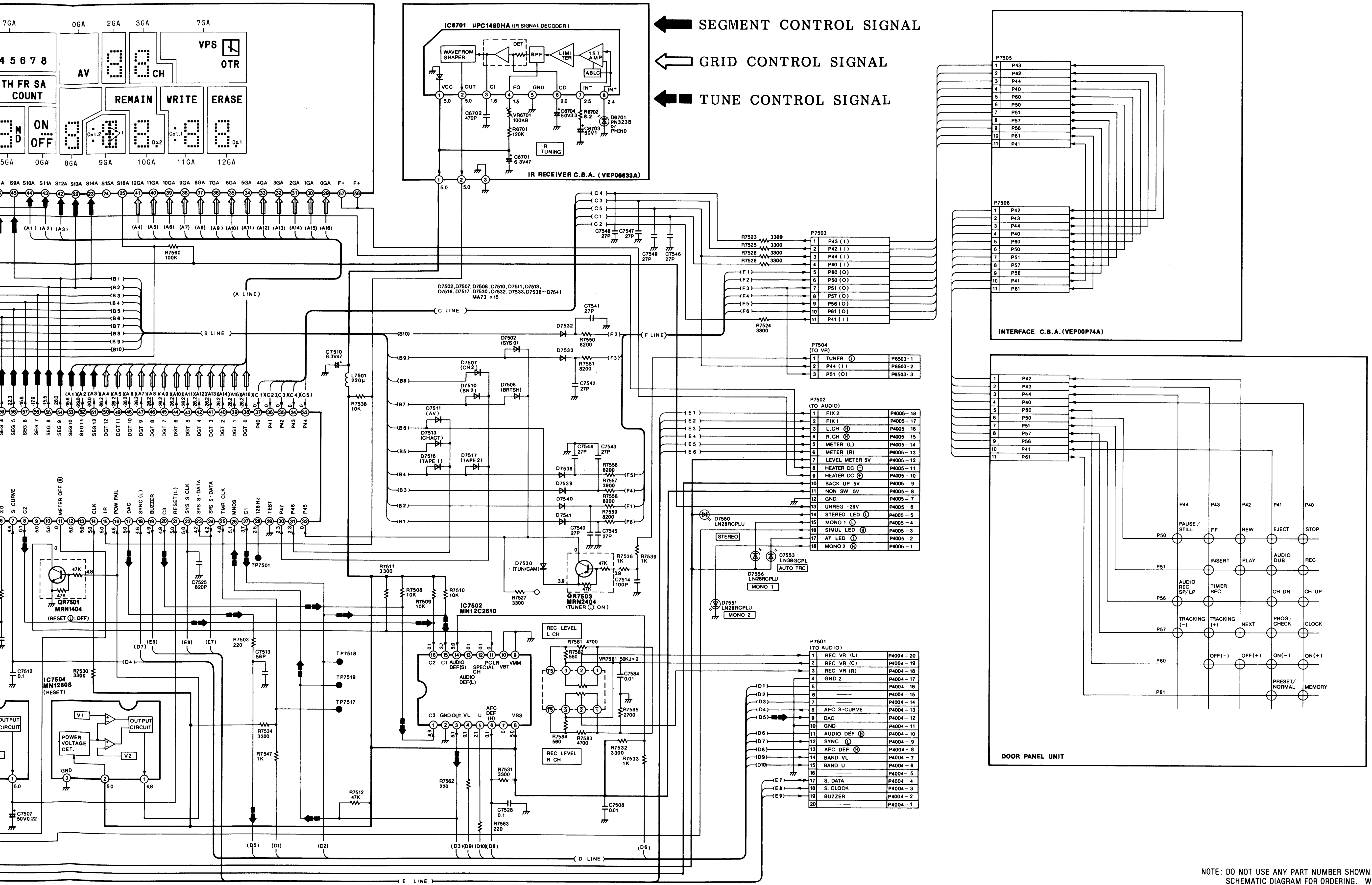
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
TIMER Section

3-27. TIMER SCHEMATIC DIAGRAM


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
DP7501 VSL0183B
0GA 1GA 6GA 7GA 2GA 3GA 4GA 5GA 8GA 9GA 10GA 11GA 12GA 1GB 2GB
VIDEO
X2
REC SP LP
A.DUB BGV
INSERT.
SIMUL
1 2 3 4 5 6 7 8
SU MO TU WE TH FR SA
EW MRS COUNT
AV
CH
VPS
OTR
REMAIN
WRITE
ERASE
dB - ∞ 40 30 20 10 7 4 2 0 2 4 7 10+
Po
ON
OFF
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMITER
1ST AMP
ABLC
VCC OUT CI FO GND CD IN⁻ IN⁺
IR TUNING
IR RECEIVER C.B.A. (VEP08633A)
D6701 PN323B or PH310
IC7501 MN187125VFY
IC7505 BA6810S
IC7502 MN12C261D
IC7503 MN1280L,K (RESET)
IC7504 MN1280S (RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
QR7501 MRN1404 (RESET Ⓛ: OFF)
QR7503 MRN2404 (TUNER Ⓛ: ON)
QR7505 MRN2402 (METER OFF Ⓗ: OFF)
QR7510 MRN2403 (SWITCHING)
QR7511 MRN2403 (SWITCHING)
QR7512 MRN2403 (SIMUL LED Ⓛ: ON)
QR7513 MRN1404 (SIMUL LED Ⓗ: ON)
X7501 VSX0140 A,B
X7502 VSX0094 A,C,E
TIMER CLOCK
RX7501 EXBF8E104J (100K)
RX7502 EXBF8E104J (100K)
RX7503 EXBF6E104J (100K)
D7502, D7507, D7508, D7510, D7511, D7513, D7516, D7517, D7530, D7532, D7533, D7538~D7541 MA73 ×15
D7502 (SYS 0)
D7507 (CN 2)
D7510 (BN 2)
D7508 (BRTSH)
D7511 (AV)
D7513 (CHACT)
D7516 (TAPE 1)
D7517 (TAPE 2)
D7530 (TUN/CAM)
D7550 LN28RCPLU STEREO
D7551 LN28RCPLU MONO 2
D7553 LN38GCPL AUTO TRC
D7556 LN28RCPLU MONO 1
REC LEVEL L CH
REC LEVEL R CH
VR7581 50KJ×2
A LINE
B LINE
C LINE
D LINE
E LINE
F LINE
TP7501 TP7517 TP7518 TP7519
P7503
1 P43 (I)
2 P42 (I)
3 P44 (I)
4 P40 (I)
5 P60 (O)
6 P50 (O)
7 P51 (O)
8 P57 (O)
9 P56 (O)
10 P61 (O)
11 P41 (I)
P7504 (TO VR)
1 TUNER Ⓛ P6503-1
2 P44 (I) P6503-2
3 P51 (O) P6503-3
P7502 (TO AUDIO)
1 FIX 2 P4005-18
2 FIX 1 P4005-17
3 L.CH Ⓗ P4005-16
4 R.CH Ⓗ P4005-15
5 METER (L) P4005-14
6 METER (R) P4005-13
7 LEVEL METER 5V P4005-12
8 HEATER DC ⊖ P4005-11
9 HEATER DC ⊕ P4005-10
10 BACK UP 5V P4005-9
11 NON SW 5V P4005-8
12 GND P4005-7
13 UNREG -29V P4005-6
14 STEREO LED Ⓛ P4005-5
15 MONO 1 Ⓛ P4005-4
16 SIMUL LED Ⓗ P4005-3
17 AT LED Ⓛ P4005-2
18 MONO 2 Ⓗ P4005-1
P7501 (TO AUDIO)
1 REC VR (L) P4004-20
2 REC VR (C) P4004-19
3 REC VR (R) P4004-18
4 GND 2 P4004-17
5 —— P4004-16
6 —— P4004-15
7 —— P4004-14
8 AFC S-CURVE P4004-13
9 DAC P4004-12
10 GND P4004-11
11 AUDIO DEF Ⓗ P4004-10
12 SYNC Ⓛ P4004-9
13 AFC DEF Ⓗ P4004-8
14 BAND VL P4004-7
15 BAND U P4004-6
16 —— P4004-5
17 S. DATA P4004-4
18 S. CLOCK P4004-3
19 BUZZER P4004-2
20 —— P4004-1
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11

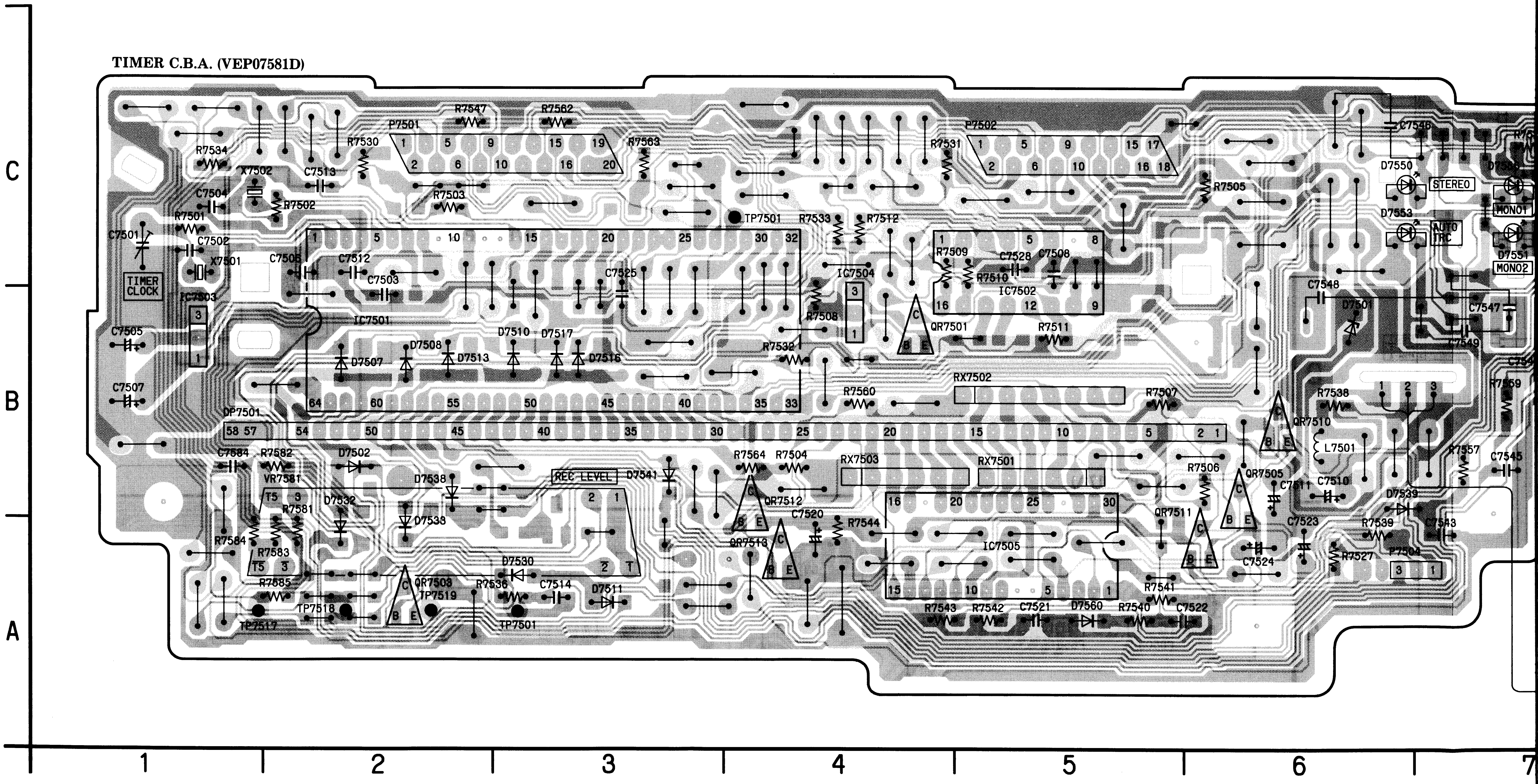
NOTE: THE MEASUREMENT MODE OF T


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
BPF
LIMITER
1ST AMP
ABLC
IR TUNING
IR RECEIVER C.B.A. (VEP06633A)
INTERFACE C.B.A. (VEP00P74A)
DOOR PANEL UNIT
P7505
P7506
P7503
P7504 (TO VR)
P7502 (TO AUDIO)
P7501 (TO AUDIO)
A LINE
B LINE
C LINE
D LINE
E LINE
F LINE
IC7502 MN12C261D
IC7504 MN1280S (RESET)
QR7501 MRN1404 (RESET Ⓛ: OFF)
QR7503 MRN2404 (TUNER Ⓛ: ON)
REC LEVEL L CH
REC LEVEL R CH
POWER VOLTAGE DET.
OUTPUT CIRCUIT
STEREO
AUTO TRC
MONO 1
MONO 2
VPS
OTR
AV
CH
REMAIN
WRITE
ERASE
ON
OFF
PAUSE/STILL
FF
REW
EJECT
STOP
INSERT
PLAY
AUDIO DUB
REC
AUDIO REC SP/LP
TIMER REC
CH DN
CH UP
TRACKING (-)
TRACKING (+)
NEXT
PROG/CHECK
CLOCK
OFF(-)
OFF(+)
ON(-)
ON(+)
PRESET/NORMAL
MEMORY
5
6
7
8
9
10
11
12
13
14
15

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE. (SP MODE)

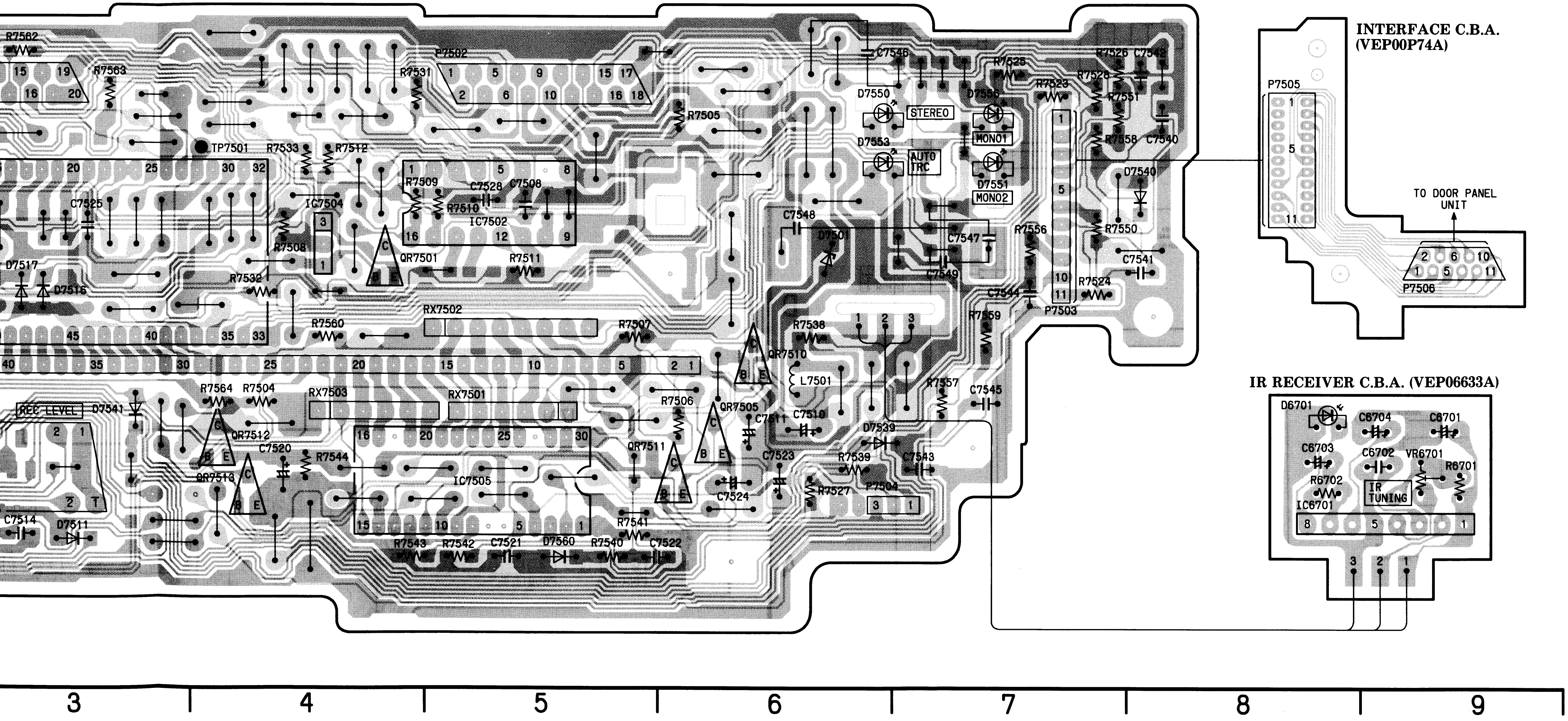
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-28. TIMER C.B.A. (VEP07581D)


TIMER C.B.A. (VEP07581D)
C
B
A
1
2
3
4
5
6
7
P7501
P7502
IC7501
IC7502
IC7503
IC7504
IC7505
X7501
X7502
TP7501
TP7517
TP7518
TP7519
QR7501
QR7503
QR7505
QR7510
QR7511
QR7512
QR7513
RX7501
RX7502
RX7503
VR7581
L7501
P7504
DP7501
D7502
D7507
D7508
D7510
D7511
D7513
D7516
D7517
D7530
D7532
D7538
D7539
D7541
D7550
D7551
D7553
D7560
TIMER CLOCK
REC LEVEL
STEREO
MONO1
MONO2
AUTO TRC
R7501
R7502
R7503
R7504
R7505
R7506
R7507
R7508
R7509
R7510
R7511
R7512
R7527
R7530
R7531
R7532
R7533
R7534
R7536
R7538
R7539
R7540
R7541
R7542
R7543
R7544
R7547
R7557
R7559
R7560
R7562
R7563
R7564
R7581
R7582
R7583
R7584
R7585
C7501
C7502
C7503
C7504
C7505
C7506
C7507
C7508
C7510
C7511
C7512
C7513
C7514
C7520
C7521
C7522
C7523
C7524
C7525
C7528
C7543
C7545
C7546
C7547
C7548
C7549
C7584

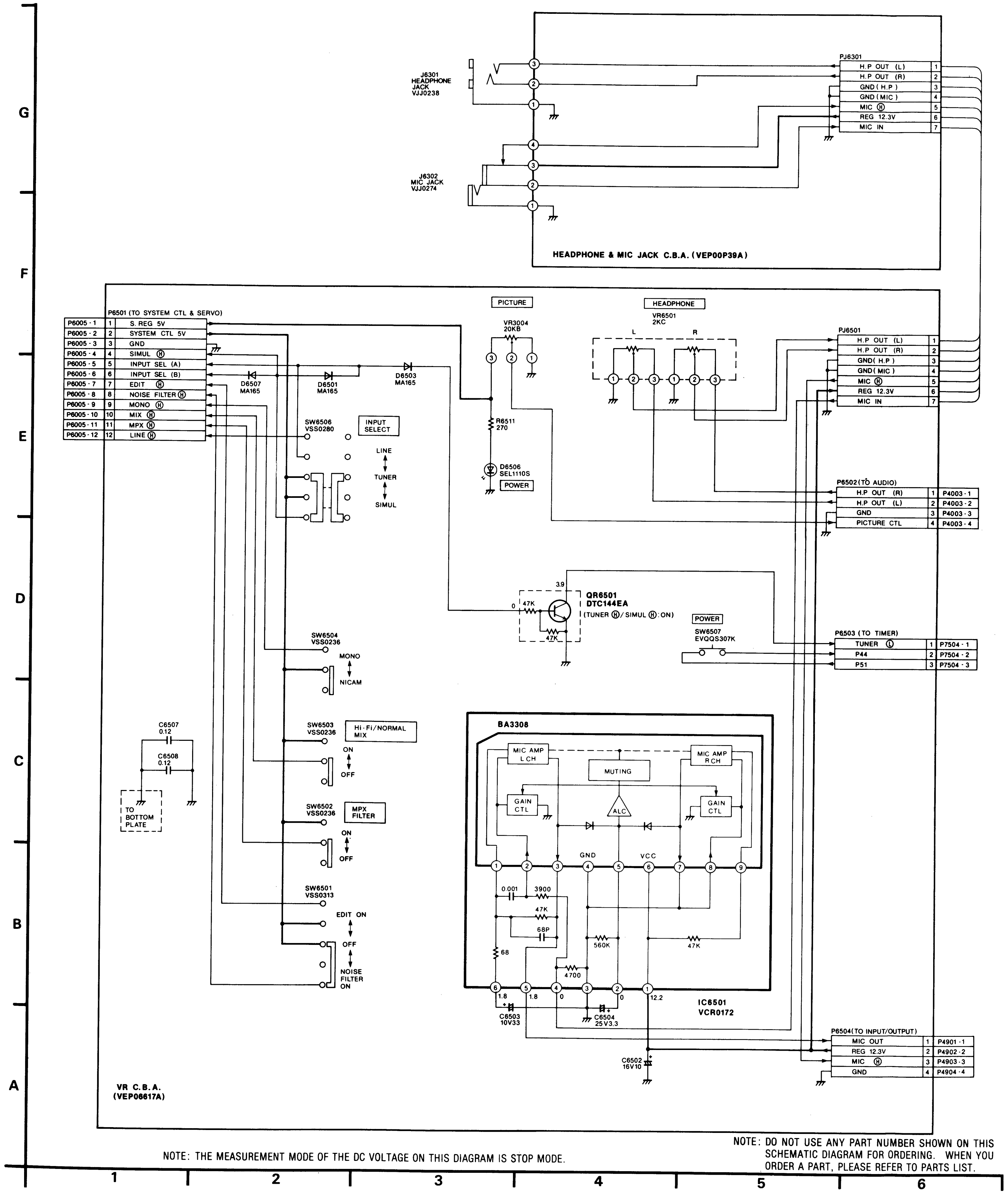
TIMER C.B.A.					
Transistor & Resistor		IC7502	B-5	**Adjustment**	
QR7501	B-4	IC7503	B-1	C7501	C-1
QR7503	A-2	IC7504	C-4	VR6701	A-9
QR7505	B-6	IC7505	A-5	VR7581	B-2
QR7510	B-6	**Test Point**		**Connector**	
QR7511	A-6	TP7501	A-3	P7501	C-2
QR7512	A-4	TP7501	C-4	P7502	C-5
QR7513	A-4	TP7517	A-1	P7503	B-7
Integrated Circuit		TP7518	A-2	P7504	A-6
IC6701	A-8	TP7519	A-2	P7505	C-8
IC7501	B-2			P7506	B-9

ADDRESS INFORMATION


INTERFACE C.B.A.
(VEP00P74A)
IR RECEIVER C.B.A. (VEP06633A)
TO DOOR PANEL UNIT
P7505
P7506
D6701
C6704
C6701
C6703
C6702
VR6701
R6701
R6702
IR TUNING
IC6701
R7562
R7563
P7502
R7531
R7505
C7546
D7550
STEREO
D7553
AUTO TRC
D7556
MONO1
D7551
MONO2
R7525
R7523
R7526
C7542
R7528
R7551
R7558
C7540
D7540
R7550
C7541
R7524
P7503
TP7501
R7533
R7512
IC7504
R7509
C7528
C7508
R7510
IC7502
R7508
QR7501
R7511
D7517
D7516
C7525
R7532
RX7502
R7560
R7507
C7548
D7501
C7547
C7549
R7556
C7544
R7559
R7538
QR7510
L7501
R7557
C7545
REC LEVEL
D7541
R7564
R7504
RX7503
RX7501
R7506
QR7505
C7511
C7510
QR7512
C7520
R7544
QR7513
IC7505
QR7511
C7523
D7539
R7539
C7543
C7524
R7527
P7504
C7514
D7511
R7541
R7543
R7542
C7521
D7560
R7540
C7522
3
4
5
6
7
8
9

Next Page:
VR Section

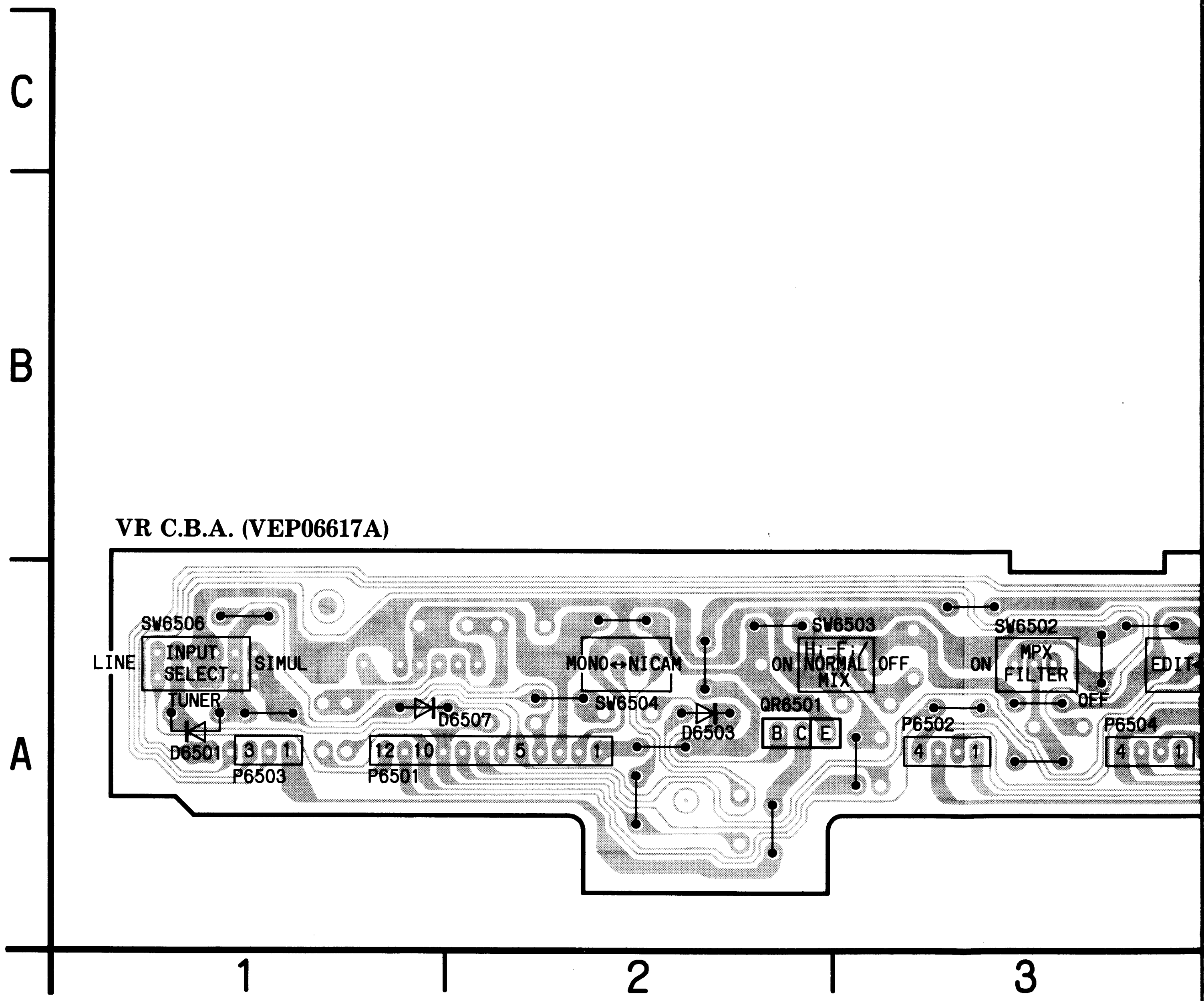
3-29. VR SCHEMATIC DIAGRAM

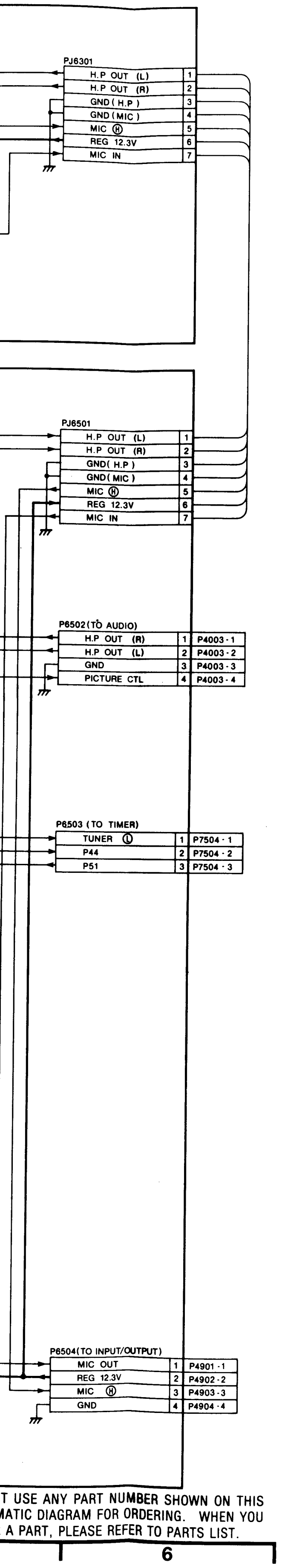

J6301 HEADPHONE JACK VJJ0238
J6302 MIC JACK VJJ0274
PJ6301
H.P OUT (L)
H.P OUT (R)
GND (H.P)
GND (MIC)
MIC Ⓗ
REG 12.3V
MIC IN
HEADPHONE & MIC JACK C.B.A. (VEP00P39A)
P6501 (TO SYSTEM CTL & SERVO)
P6005-1 S.REG 5V
P6005-2 SYSTEM CTL 5V
P6005-3 GND
P6005-4 SIMUL Ⓗ
P6005-5 INPUT SEL (A)
P6005-6 INPUT SEL (B)
P6005-7 EDIT Ⓗ
P6005-8 NOISE FILTER Ⓗ
P6005-9 MONO Ⓗ
P6005-10 MIX Ⓗ
P6005-11 MPX Ⓗ
P6005-12 LINE Ⓗ
D6507 MA165
D6501 MA165
D6503 MA165
PICTURE
VR3004 20KB
HEADPHONE
VR6501 2KC
L
R
R6511 270
D6506 SEL1110S
POWER
SW6506 VSS0280
INPUT SELECT
LINE
TUNER
SIMUL
PJ6501
P6502 (TO AUDIO)
H.P OUT (R) P4003-1
H.P OUT (L) P4003-2
GND P4003-3
PICTURE CTL P4003-4
QR6501 DTC144EA
(TUNER Ⓗ/SIMUL Ⓗ:ON)
47K
47K
3.9
0
POWER
SW6507 EVQQS307K
P6503 (TO TIMER)
TUNER Ⓛ P7504-1
P44 P7504-2
P51 P7504-3
SW6504 VSS0236
MONO
NICAM
C6507 0.12
C6508 0.12
TO BOTTOM PLATE
SW6503 VSS0236
Hi-Fi/NORMAL MIX
ON
OFF
SW6502 VSS0236
MPX FILTER
ON
OFF
SW6501 VSS0313
EDIT ON
OFF
NOISE FILTER ON
BA3308
MIC AMP L CH
MIC AMP R CH
MUTING
GAIN CTL
GAIN CTL
ALC
GND
VCC
0.001
3900
47K
68P
68
560K
47K
4700
1.8
1.8
0
0
12.2
C6503 10V33
C6504 25V3.3
C6502 16V10
IC6501 VCR0172
P6504 (TO INPUT/OUTPUT)
MIC OUT P4901-1
REG 12.3V P4902-2
MIC Ⓗ P4903-3
GND P4904-4
VR C.B.A. (VEP06617A)
G
F
E
D
C
B
A
1
2
3
4
5
6

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-30. VR C.B.A. (VEP06617A)


VR C.B.A. (VEP06617A)
SW6506
LINE
INPUT SELECT
SIMUL
TUNER
D6501
P6503
3 1
12 10 5 1
P6501
D6507
MONO↔NICAM
SW6504
D6503
SW6503
ON
Hi-Fi/NORMAL MIX
OFF
QR6501
B C E
P6502
4 1
SW6502
ON
MPX FILTER
OFF
EDIT
P6504
4 1
C
B
A
1
2
3

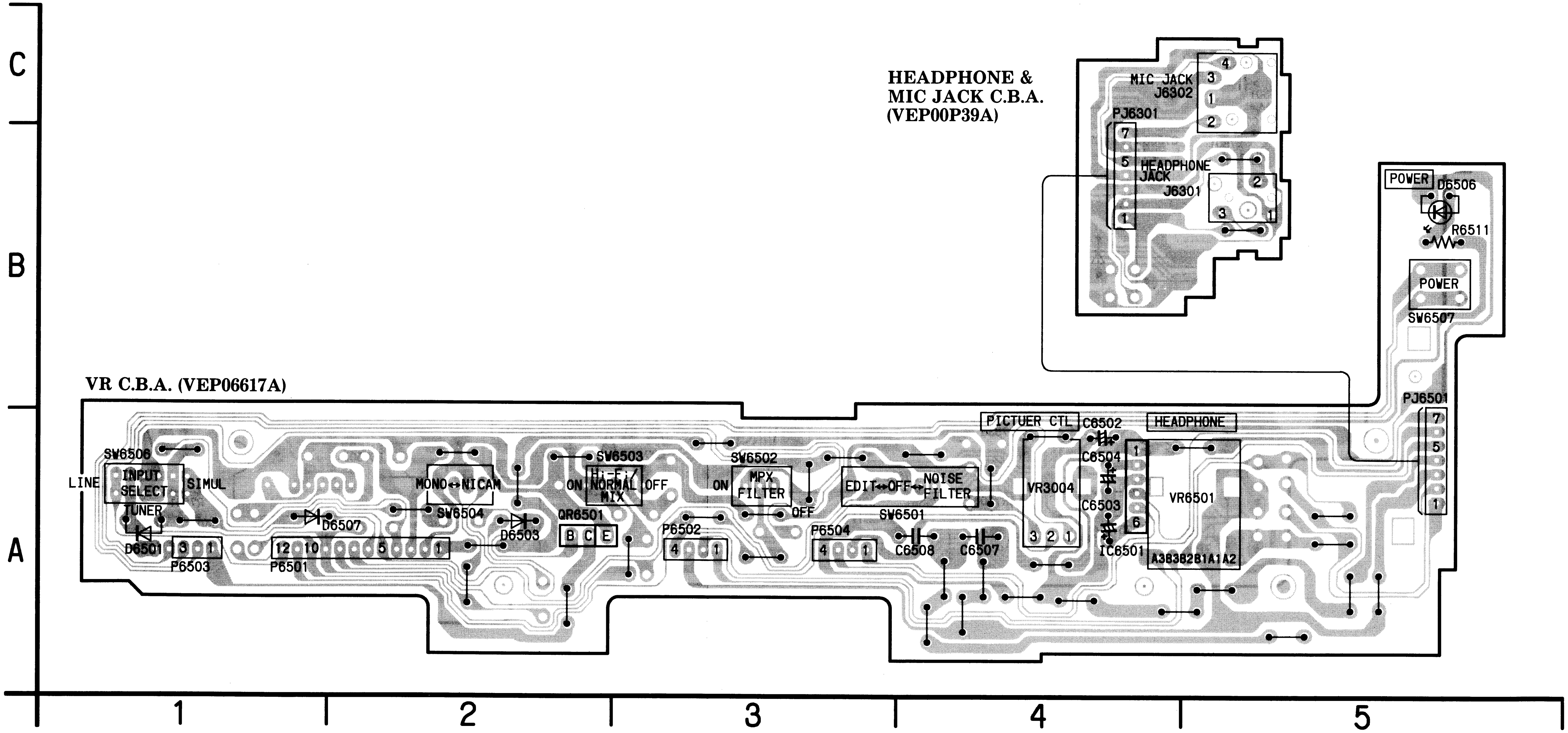

PJ6301
H.P OUT (L)
H.P OUT (R)
GND (H.P)
GND (MIC)
MIC Ⓗ
REG 12.3V
MIC IN
PJ6501
H.P OUT (L)
H.P OUT (R)
GND(H.P)
GND(MIC)
MIC Ⓗ
REG 12.3V
MIC IN
P6502(TO AUDIO)
H.P OUT (R)
H.P OUT (L)
GND
PICTURE CTL
P4003-1
P4003-2
P4003-3
P4003-4
P6503 (TO TIMER)
TUNER Ⓛ
P44
P51
P7504-1
P7504-2
P7504-3
P6504(TO INPUT/OUTPUT)
MIC OUT
REG 12.3V
MIC Ⓗ
GND
P4901-1
P4902-2
P4903-3
P4904-4
6

T USE ANY PART NUMBER SHOWN ON THIS
MATIC DIAGRAM FOR ORDERING. WHEN YOU
A PART, PLEASE REFER TO PARTS LIST.

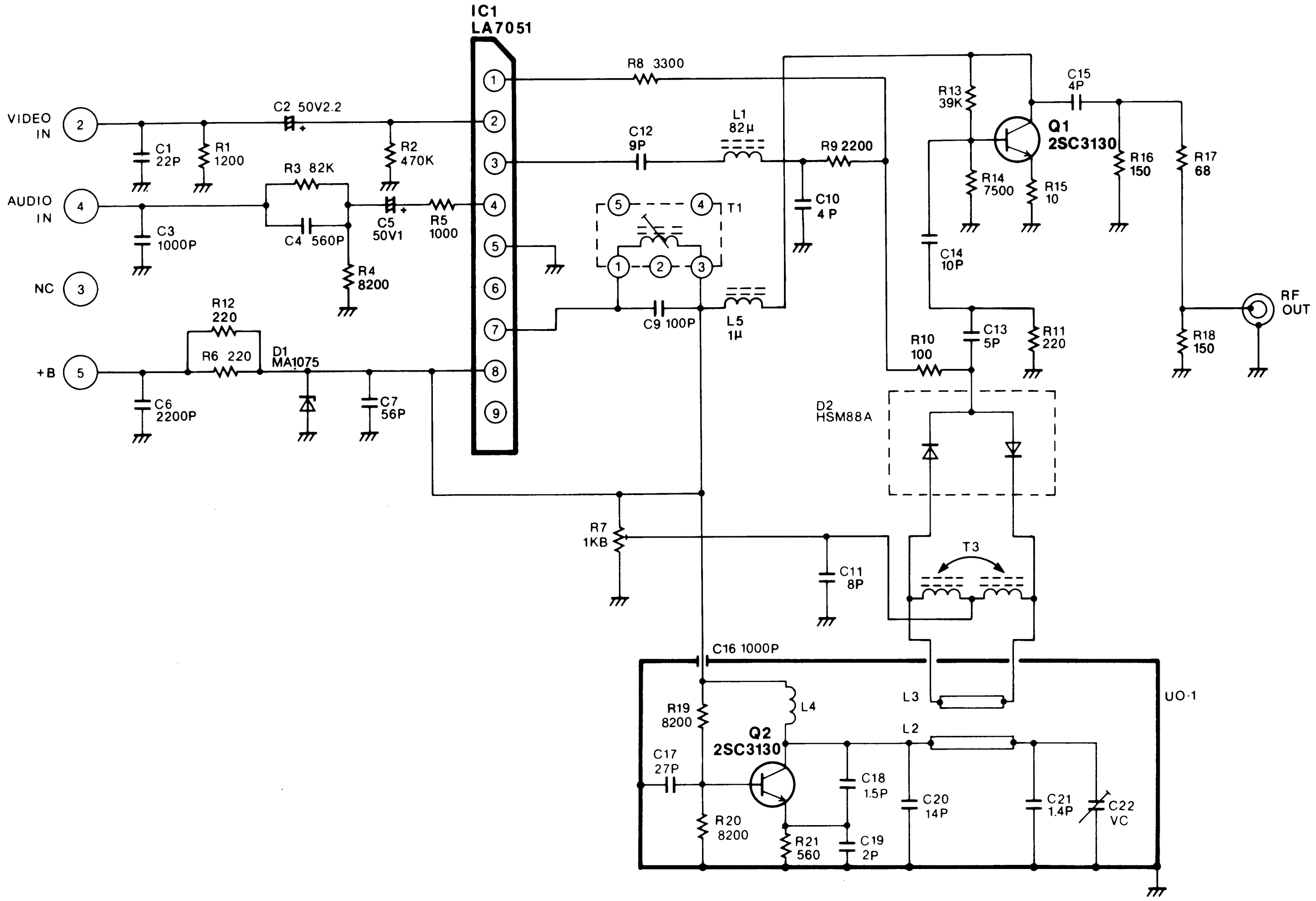
3-30. VR C.B.A. (VEP06617A)

VR C.B.A.	
Transistor & Resistor	
QR6501	A-2
Integrated Circuit	
IC6501	A-4
Adjustment	
VR3004	A-4
VR6501	A-5
Connector	
P6501	A-1
P6502	A-3
P6503	A-1
P6504	A-3
PJ6301	B-4
PJ6501	A-5

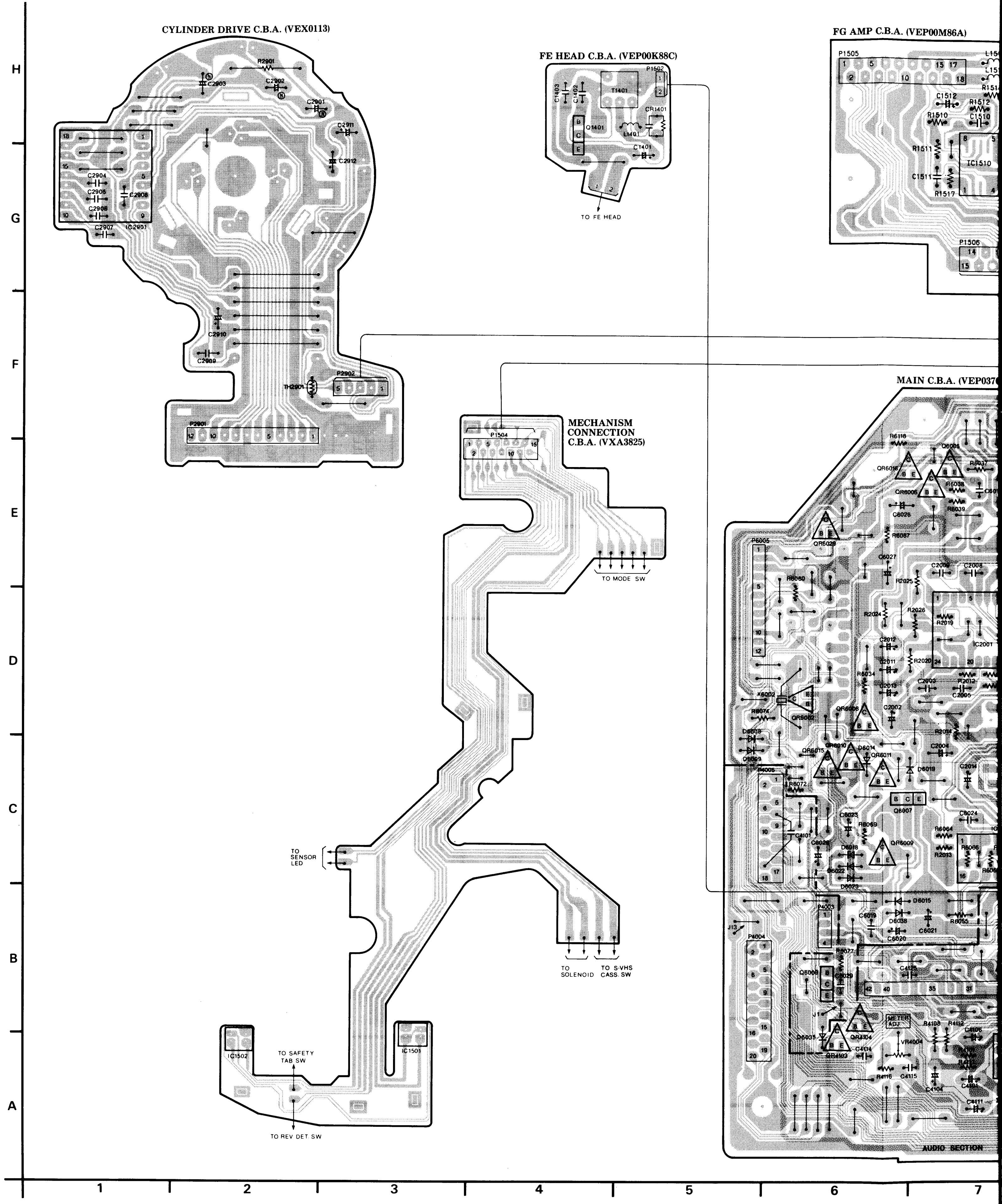
ADDRESS INFORMATION

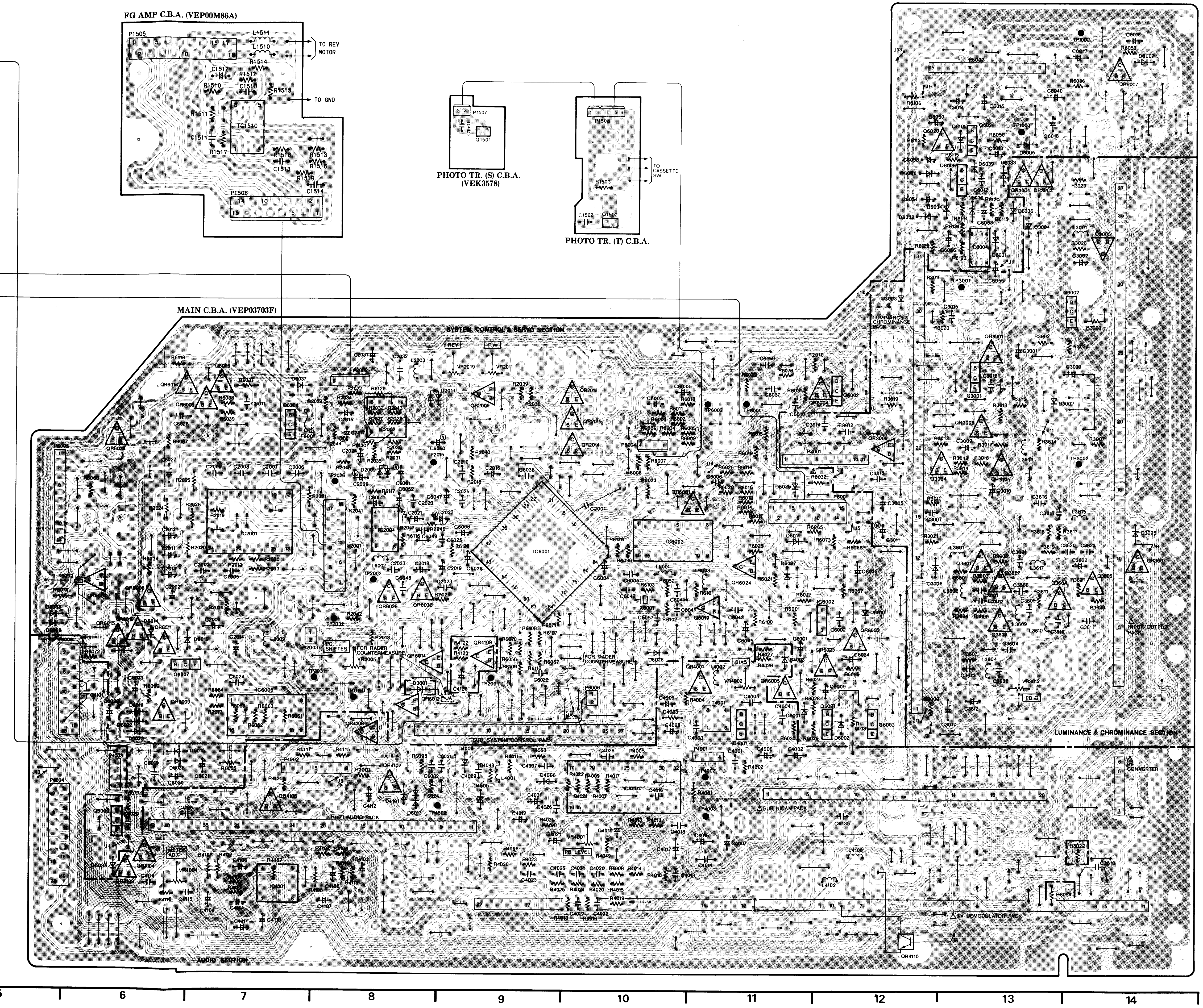

C
B
A
1
2
3
4
5
HEADPHONE &
MIC JACK C.B.A.
(VEP00P39A)
MIC JACK
J6302
PJ6301
HEADPHONE
JACK
J6301
POWER
D6506
R6511
POWER
SW6507
PJ6501
VR C.B.A. (VEP06617A)
SW6506
LINE
INPUT
SELECT
SIMUL
TUNER
D6501
P6503
D6507
P6501
MONO↔NICAM
SW6504
D6503
QR6501
B C E
SW6503
ON
Hi-Fi/
NORMAL
MIX
OFF
P6502
SW6502
ON
MPX
FILTER
OFF
P6504
EDIT↔OFF↔NOISE
FILTER
SW6501
C6508
C6507
PICTUER CTL
C6502
C6504
C6503
VR3004
IC6501
HEADPHONE
VR6501
A3838281A1A2

3-31. RF CONVERTER SCHEMATIC DIAGRAM (ENC17972B)


IC1
LA7051
VIDEO IN
AUDIO IN
NC
+B
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R5 1000
R4 8200
R12 220
R6 220
D1 MA1075
C6 2200P
C7 56P
R8 3300
C12 9P
L1 82μ
R9 2200
C10 4 P
T1
C9 100P
L5 1μ
R13 39K
R14 7500
R15 10
Q1 2SC3130
C15 4P
R16 150
R17 68
C14 10P
C13 5P
R11 220
R10 100
R18 150
RF OUT
D2 HSM88A
R7 1KB
C11 8P
T3
C16 1000P
UO-1
R19 8200
L4
Q2 2SC3130
C17 27P
R20 8200
R21 560
C18 1.5P
C19 2P
L3
L2
C20 14P
C21 1.4P
C22 VC

3-32. MAIN C.B.A. (VEP03703F)


CYLINDER DRIVE C.B.A. (VEX0113)
FE HEAD C.B.A. (VEP00K88C)
FG AMP C.B.A. (VEP00M86A)
MECHANISM CONNECTION C.B.A. (VXA3825)
MAIN C.B.A. (VEP037
TO FE HEAD
TO MODE SW
TO SENSOR LED
TO SOLENOID
TO S-VHS CASS. SW
TO SAFETY TAB SW
TO REV DET SW
AUDIO SECTION
IC2901
P2901
P2902
TH2901
P1502
P1504
P1505
P1506
IC1510
IC1501
IC1502
IC2001
METER ADJ
VR4004
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7


FG AMP C.B.A. (VEP00M86A)
TO REV MOTOR
TO GND
PHOTO TR. (S) C.B.A.
(VEK3578)
TO CASSETTE SW
PHOTO TR. (T) C.B.A.
MAIN C.B.A. (VEP03703F)
SYSTEM CONTROL & SERVO SECTION
LUMINANCE & CHROMINANCE PACK
IC6001
IC2001
IC6003
SUB SYSTEM CONTROL PACK
Hi-Fi AUDIO PACK
SUB NICAM PACK
TV DEMODULATOR PACK
INPUT/OUTPUT PACK
RF CONVERTER
LUMINANCE & CHROMINANCE SECTION
AUDIO SECTION
FOR RADER COUNTERMEASURE
PB LEVEL
METER ADJ
6
7
8
9
10
11
12
13
14

MAIN C.B.A. ADDRESS INFORMATION

SYSTEM CONTROL & SERVO Section	
Transistor	
Q1401	H-4
Q1501	G-9
Q1502	G-10
Q6001	C-12
Q6002	E-12
Q6003	C-12
Q6004	E-7
Q6005	E-7
Q6007	C-6
Q6008	G-13
Q6009	B-6
Q6019	D-11
Q6020	G-13
Q6021	G-13
Transistor & Resistor	
QR2009	E-9
QR2013	E-10
QR2014	E-10
QR2015	E-10
QR6001	D-10
QR6002	D-6
QR6003	C-12
QR6004	E-12
QR6005	C-11
QR6006	E-7
QR6007	H-14
QR6008	D-6
QR6009	C-6
QR6010	C-6
QR6011	C-6
QR6012	C-8
QR6014	C-8
QR6015	C-6
QR6016	E-6
QR6023	C-12
QR6024	D-11
QR6026	D-8
QR6029	E-6
QR6030	D-8
Integrated Circuit	
IC1501	A-3
IC1502	A-2
IC1510	G-7
IC2001	D-7
IC2002	E-8
IC2004	D-8
IC2901	G-1
IC6001	D-9
IC6002	D-12
IC6003	D-10
IC6004	F-13
IC6005	C-7
Test Point	
TP1002	H-14
TP1003	G-13
TP2001	C-9
TP2002	D-8
TP2015	E-8
TP2026	E-8
TP2031	C-7
TP2032	C-8
TP6001	E-11
TP6002	E-11
TP GND	C-8
Adjustment	
VR2005	C-8
VR2011	E-9
VR2019	E-9
Connector	
P1502	H-5
P1504	E-4
P1505	H-6
P1506	G-7
P1507	G-9
P1508	G-10
P2001	D-8
P2002	E-8
P2003	C-7
P2901	E-2
P2902	E-3
P6001	D-12
P6002	H-13
P6004	E-10
P6005	E-6
P6006	C-10

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE Section	
Transistor	
Q3001	E-13
Q3002	F-14
Q3004	E-13
Q3005	F-14
Q3601	D-13
Q3602	D-13
Q3603	D-13
Q3604	D-13
Q3606	D-14
Transistor & Resistor	
QR3001	E-13
QR3003	G-13
QR3004	G-13
QR3005	E-13
QR3006	E-13
QR3007	D-14
QR3009	E-12
Test Point	
TP3001	F-13
TP3002	E-14
Adjustment	
VR3012	C-13
Connector	
P3001	E-12

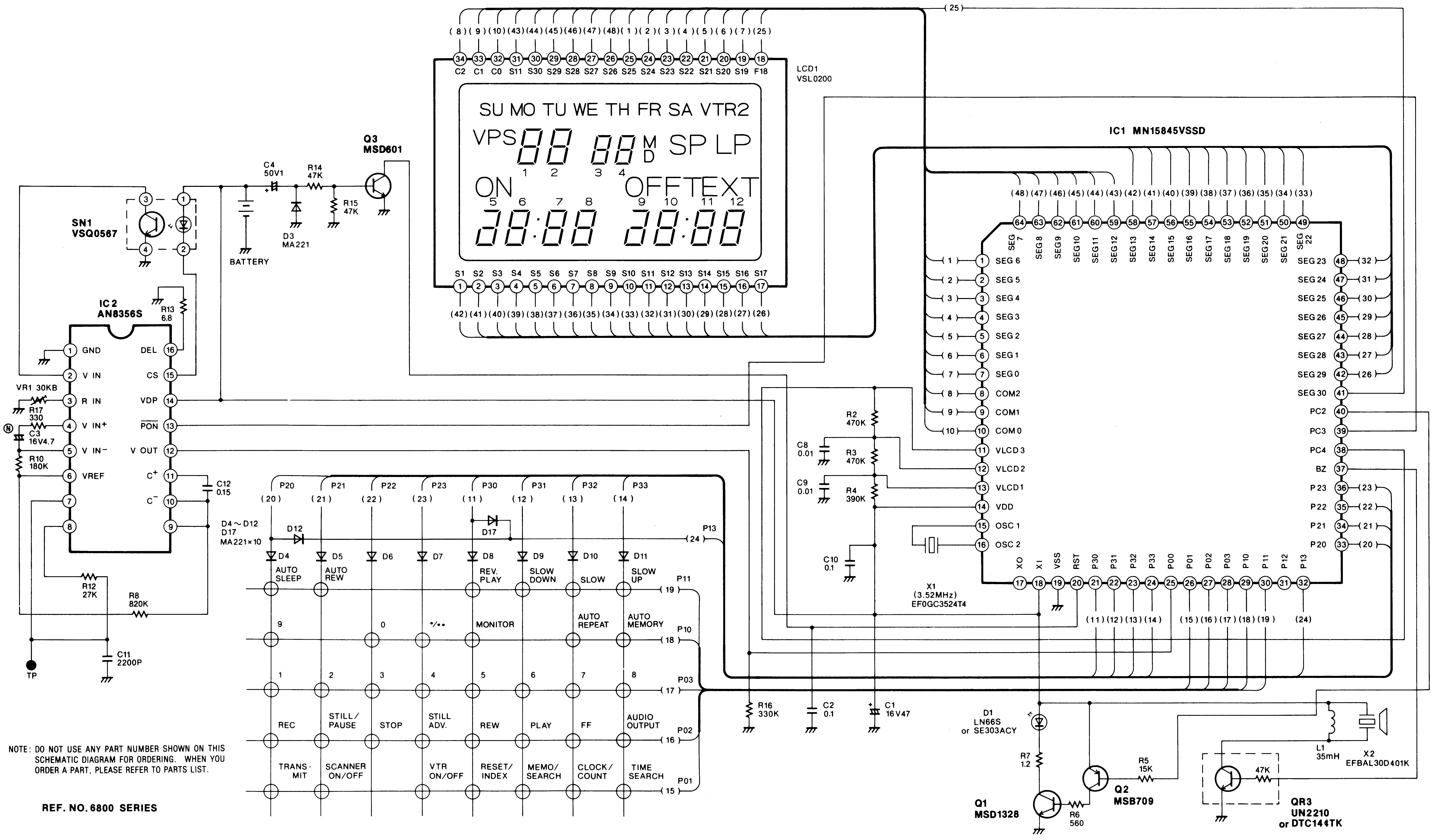
ADDRESS INFORMATION

AUDIO Section	
Transistor	
Q4001	C-11
Transistor & Resistor	
QR4001	C-11
QR4102	B-8
QR4103	A-6
QR4104	B-6
QR4105	B-7
QR4108	C-8
QR4109	C-9
QR4110	A-12
Integrated Circuit	
IC4001	B-10
IC4101	A-7
Test Point	
TP4002	B-11
TP4003	B-11
TP4502	B-8
Adjustment	
VR4001	B-10
VR4002	C-11
VR4004	A-7
Connector	
P4001	B-11
P4002	B-7
P4003	B-6
P4004	B-6
P4005	C-6

ADDRESS INFORMATION

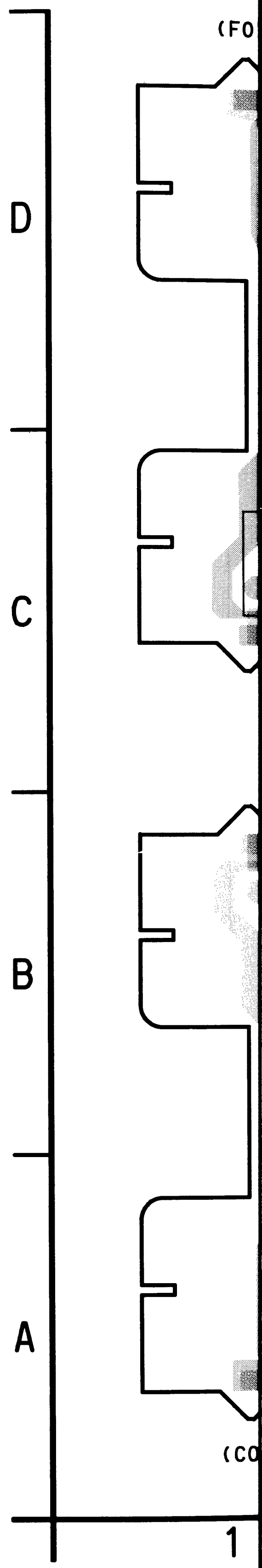
3-33. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) SCHEMATIC DIAGRAM
——UNIT NO. : VEQ1122——

3-34. REMOTE


LCD1
VSL0200
SU MO TU WE TH FR SA VTR2
VPS 88 88 M D SP LP
ON OFF TEXT
C2 C1 C0 S11 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 F18
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17
IC1 MN15845VSSD
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
SEG 0
COM2
COM1
COM 0
VLCD 3
VLCD 2
VLCD 1
VDD
OSC 1
OSC 2
XO
XI
VSS
RST
P30
P31
P32
P33
P00
P01
P02
P03
P10
P11
P12
P13
SEG 23
SEG 24
SEG 25
SEG 26
SEG 27
SEG 28
SEG 29
SEG 30
PC2
PC3
PC4
BZ
P 23
P 22
P 21
P 20
Q3
MSD601
C4
50V1
R14
47K
R15
47K
D3
MA221
BATTERY
SN1
VSQ0567
IC 2
AN8356S
R13
6.8
GND
V IN
R IN
V IN+
V IN−
VREF
DEL
CS
VDP
PON
V OUT
C+
C−
VR1 30KB
R17
330
C3
16V4.7
R10
180K
C12
0.15
R12
27K
R8
820K
C11
2200P
TP
R2
470K
R3
470K
R4
390K
C8
0.01
C9
0.01
C10
0.1
X1
(3.52MHz)
EF0GC3524T4
R16
330K
C2
0.1
C1
16V47
D1
LN66S
or SE303ACY
R7
1.2
Q1
MSD1328
R6
560
Q2
MSB709
R5
15K
QR3
UN2210
or DTC144TK
47K
L1
35mH
X2
EFBAL30D401K
D4~D12
D17
MA221×10
P20 P21 P22 P23 P30 P31 P32 P33
P13 P11 P10 P03 P02 P01
AUTO SLEEP
AUTO REW
REV. PLAY
SLOW DOWN
SLOW
SLOW UP
9
0
*/••
MONITOR
AUTO REPEAT
AUTO MEMORY
1 2 3 4 5 6 7 8
REC
STILL/ PAUSE
STOP
STILL ADV.
REW
PLAY
FF
AUDIO OUTPUT
TRANS-MIT
SCANNER ON/OFF
VTR ON/OFF
RESET/ INDEX
MEMO/ SEARCH
CLOCK/ COUNT
TIME SEARCH

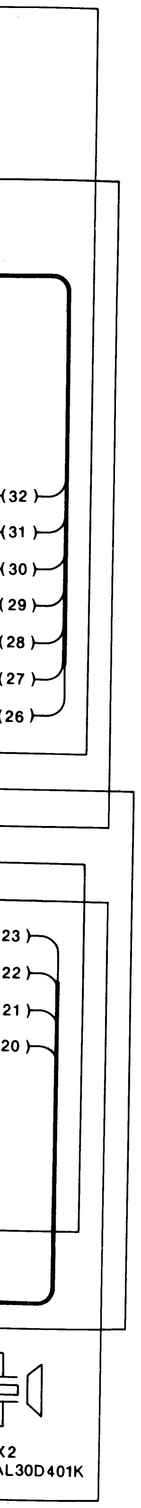
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

REF. NO. 6800 SERIES

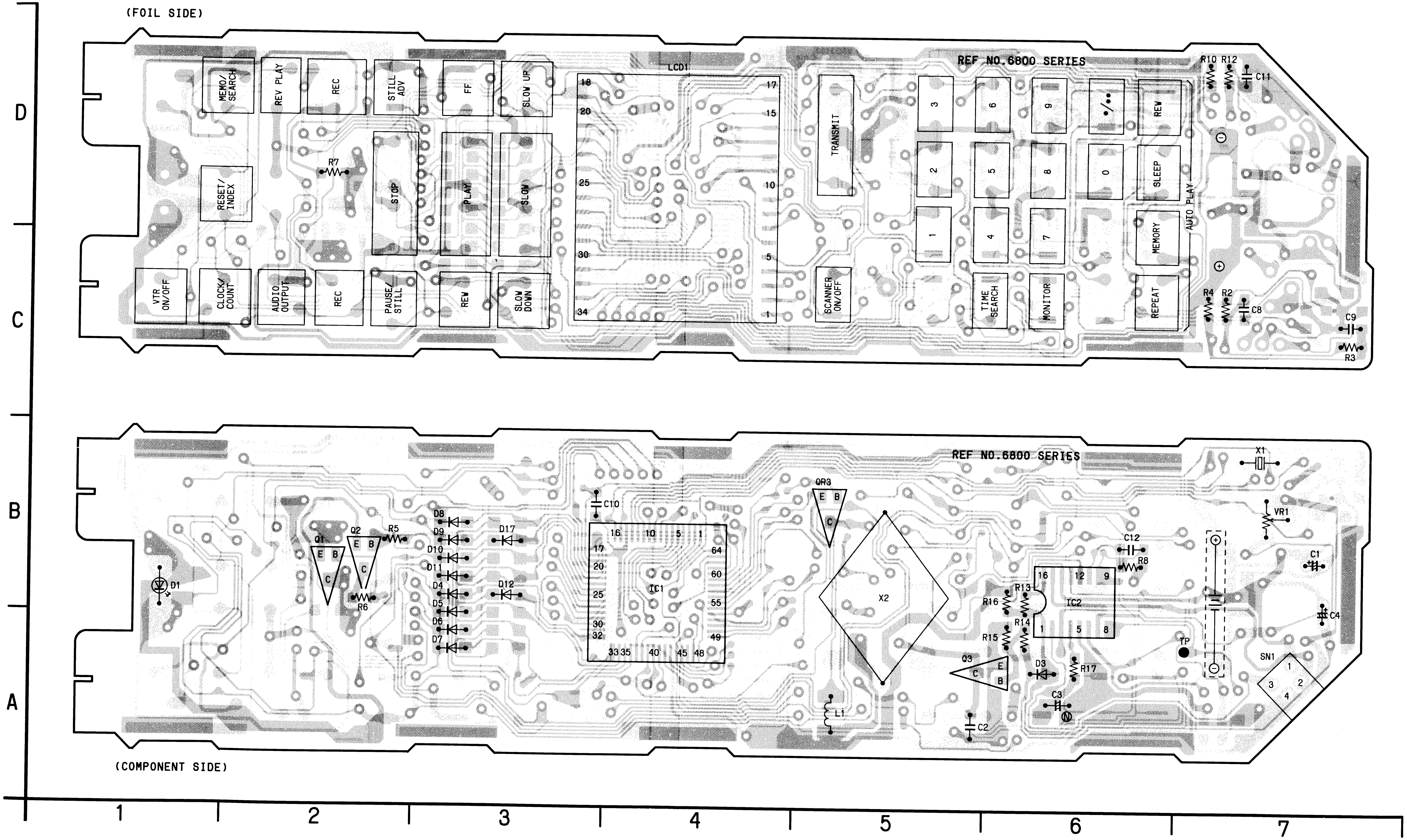


Back Page:
RF CONV. & MAIN C.B.A. Section

3-34. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) C.B.A. (VEP66125A)

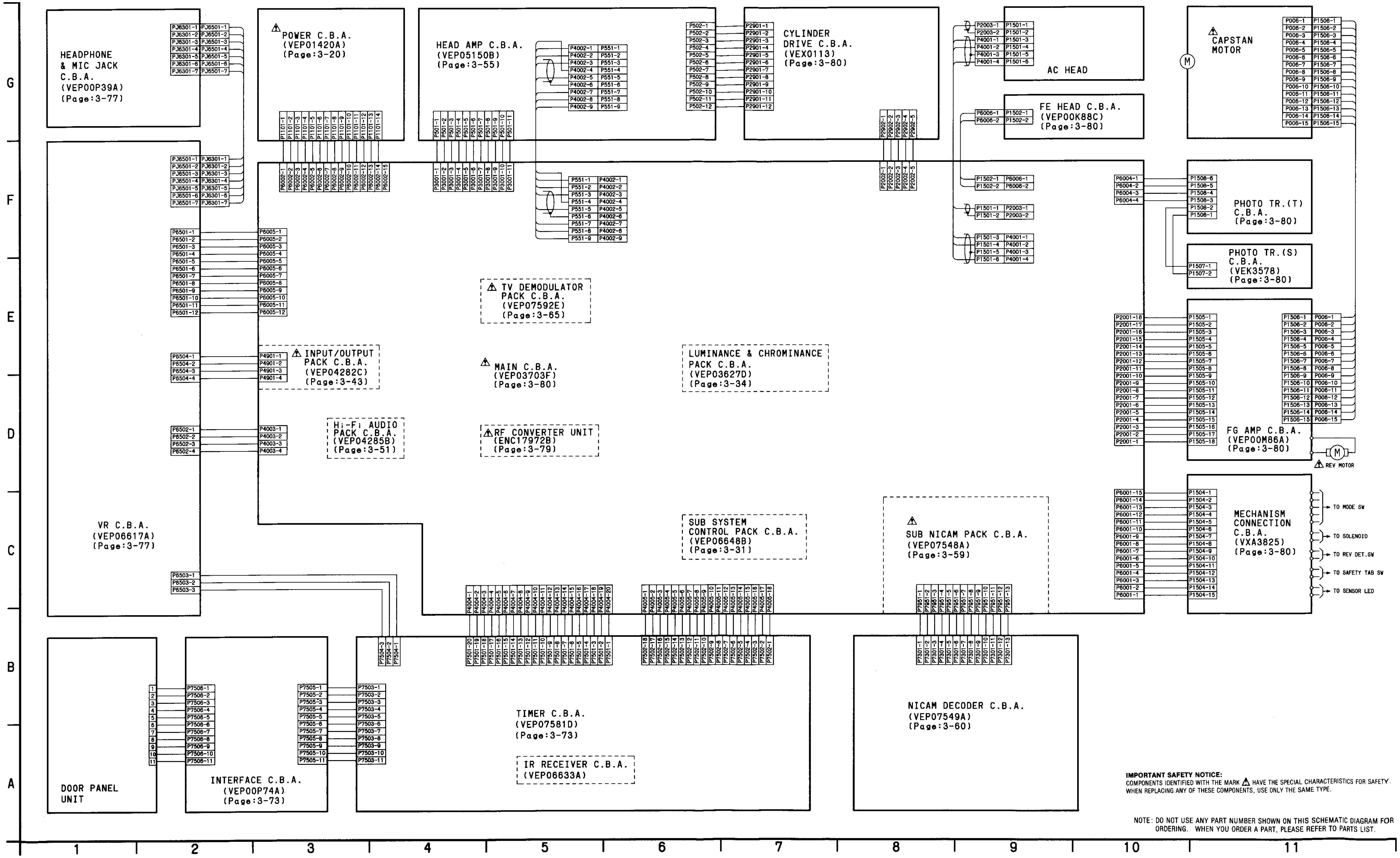


32
31
30
29
28
27
26
23
22
21
20
X2
AL30D401K



(FOIL SIDE)
D
C
B
A
MEMO/ SEARCH
REV PLAY
REC
STILL ADV
FF
SLOW UP
LCD1
REF NO.6800 SERIES
R10
R12
C11
R7
RESET/ INDEX
STOP
PLAY
SLOW
TRANSMIT
3
6
9
•/••
REW
2
5
8
0
SLEEP
AUTO PLAY
1
4
7
MEMORY
18
20
25
30
34
17
15
10
5
1
VTR ON/OFF
CLOCK/ COUNT
AUDIO OUTPUT
REC
PAUSE/ STILL
REW
SLOW DOWN
SCANNER ON/OFF
TIME SEARCH
MONITOR
REPEAT
R4
R2
C8
C9
R3
REF NO.6800 SERIES
X1
VR1
QR3
E
B
C
C10
C12
R8
C1
C4
D1
Q1
Q2
R5
R6
D8
D9
D10
D11
D4
D5
D6
D7
D17
D12
IC1
16
10
5
1
17
20
25
30
32
33
35
40
45
48
64
60
55
49
X2
IC2
16
12
9
1
5
8
R13
R16
R14
R15
Q3
D3
R17
C3
C2
L1
TP
SN1
1
2
3
4
(COMPONENT SIDE)
1
2
3
4
5
6
7

3-35. INTERCONNECTION SCHEMATIC DIAGRAM


HEADPHONE & MIC JACK C.B.A. (VEP00P39A) (Page:3-77)
⚠ POWER C.B.A. (VEP01420A) (Page:3-20)
HEAD AMP C.B.A. (VEP05150B) (Page:3-55)
CYLINDER DRIVE C.B.A. (VEX0113) (Page:3-80)
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FE HEAD C.B.A. (VEP00K88C) (Page:3-80)
⚠ CAPSTAN MOTOR
M
PHOTO TR.(T) C.B.A. (Page:3-80)
PHOTO TR.(S) C.B.A. (VEK3578) (Page:3-80)
FG AMP C.B.A. (VEP00M86A) (Page:3-80)
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MECHANISM CONNECTION C.B.A. (VXA3825) (Page:3-80)
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TO SOLENOID
TO REV DET.SW
TO SAFETY TAB SW
TO SENSOR LED
VR C.B.A. (VEP06617A) (Page:3-77)
⚠ TV DEMODULATOR PACK C.B.A. (VEP07592E) (Page:3-65)
⚠ INPUT/OUTPUT PACK C.B.A. (VEP04282C) (Page:3-43)
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DOOR PANEL UNIT
INTERFACE C.B.A. (VEP00P74A) (Page:3-73)
TIMER C.B.A. (VEP07581D) (Page:3-73)
IR RECEIVER C.B.A. (VEP06633A)
NICAM DECODER C.B.A. (VEP07549A) (Page:3-60)
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PJ6501-1 … PJ6501-7
P1101-1 … P1101-14
P6002-1 … P6002-15
P501-1 … P501-11
P3001-1 … P3001-11
P4002-1 … P4002-9
P551-1 … P551-9
P502-1 … P502-12
P2901-1 … P2901-12
P2902-1 … P2902-5
P2002-1 … P2002-5
P2003-1, P2003-2
P4001-1 … P4001-4
P1501-1 … P1501-6
P6006-1, P6006-2
P1502-1, P1502-2
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P1506-1 … P1506-15
P6004-1 … P6004-4
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P1505-1 … P1505-18
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P4901-1 … P4901-4
P6502-1 … P6502-4
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P7503-1 … P7503-11
A
B
C
D
E
F
G
1
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3
4
5
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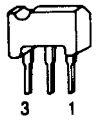
7
8
9
10
11

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-36. ICs & TRs INFORMATION



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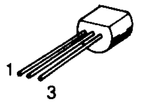

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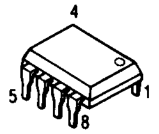

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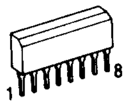

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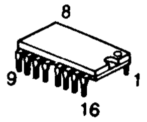

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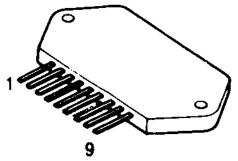

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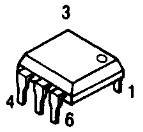

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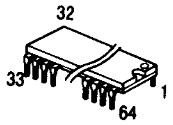

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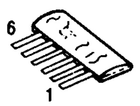

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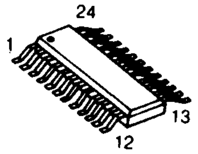

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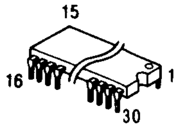

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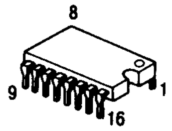

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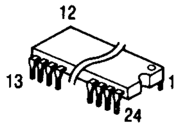

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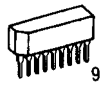

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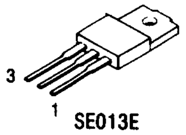

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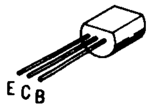

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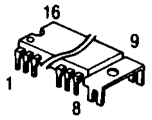

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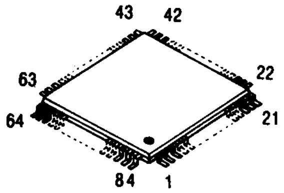
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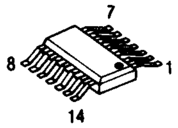

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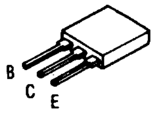

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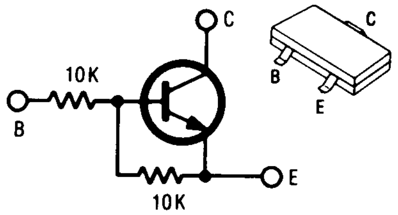
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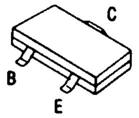

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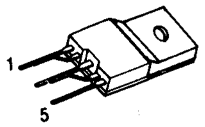

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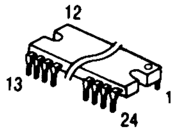

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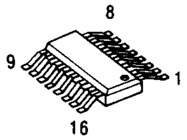

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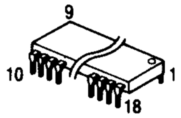

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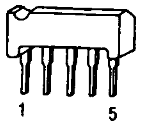

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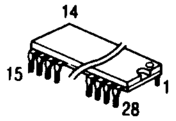

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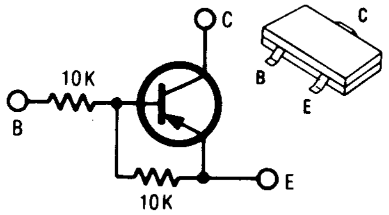
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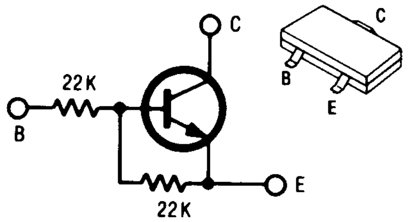
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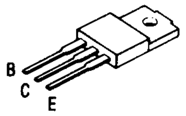

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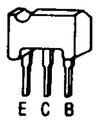

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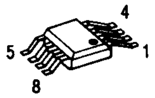

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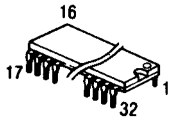

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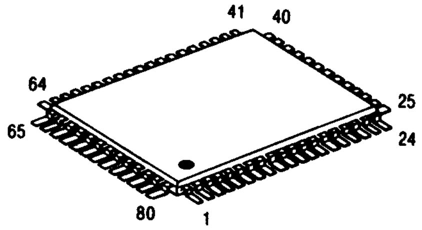
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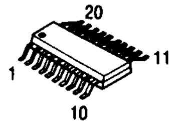

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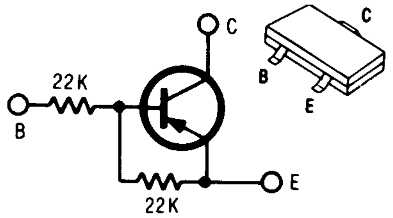
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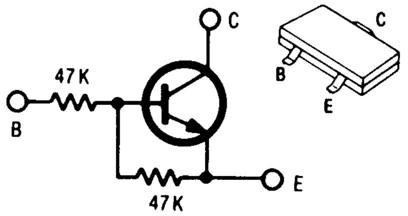
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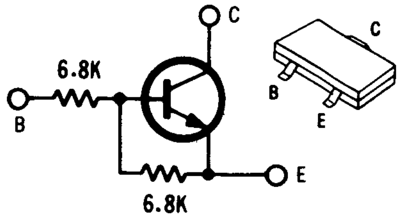
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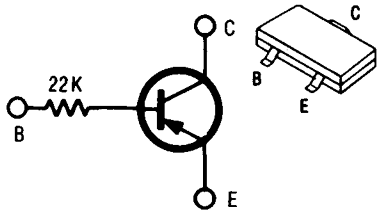

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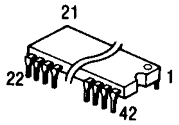

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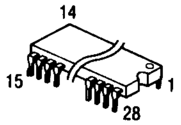

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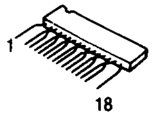

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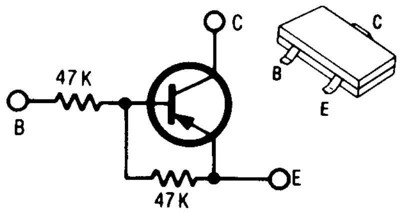
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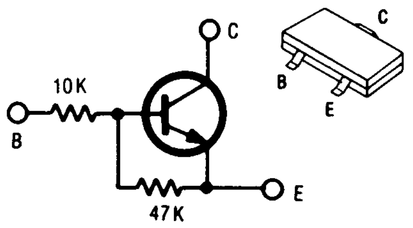
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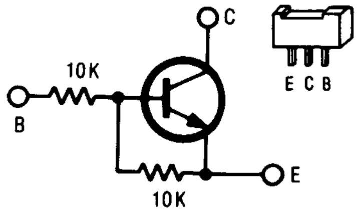
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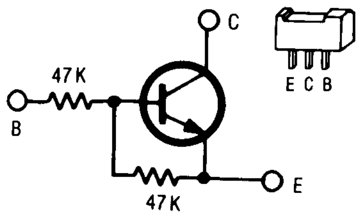
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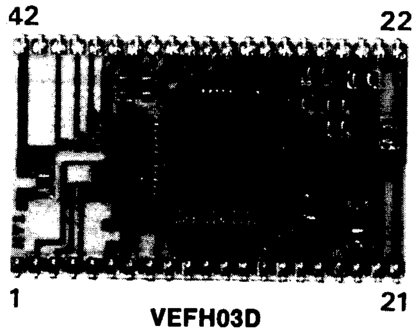

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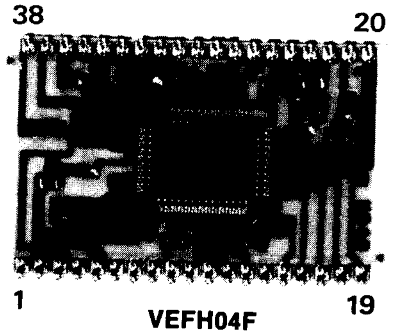
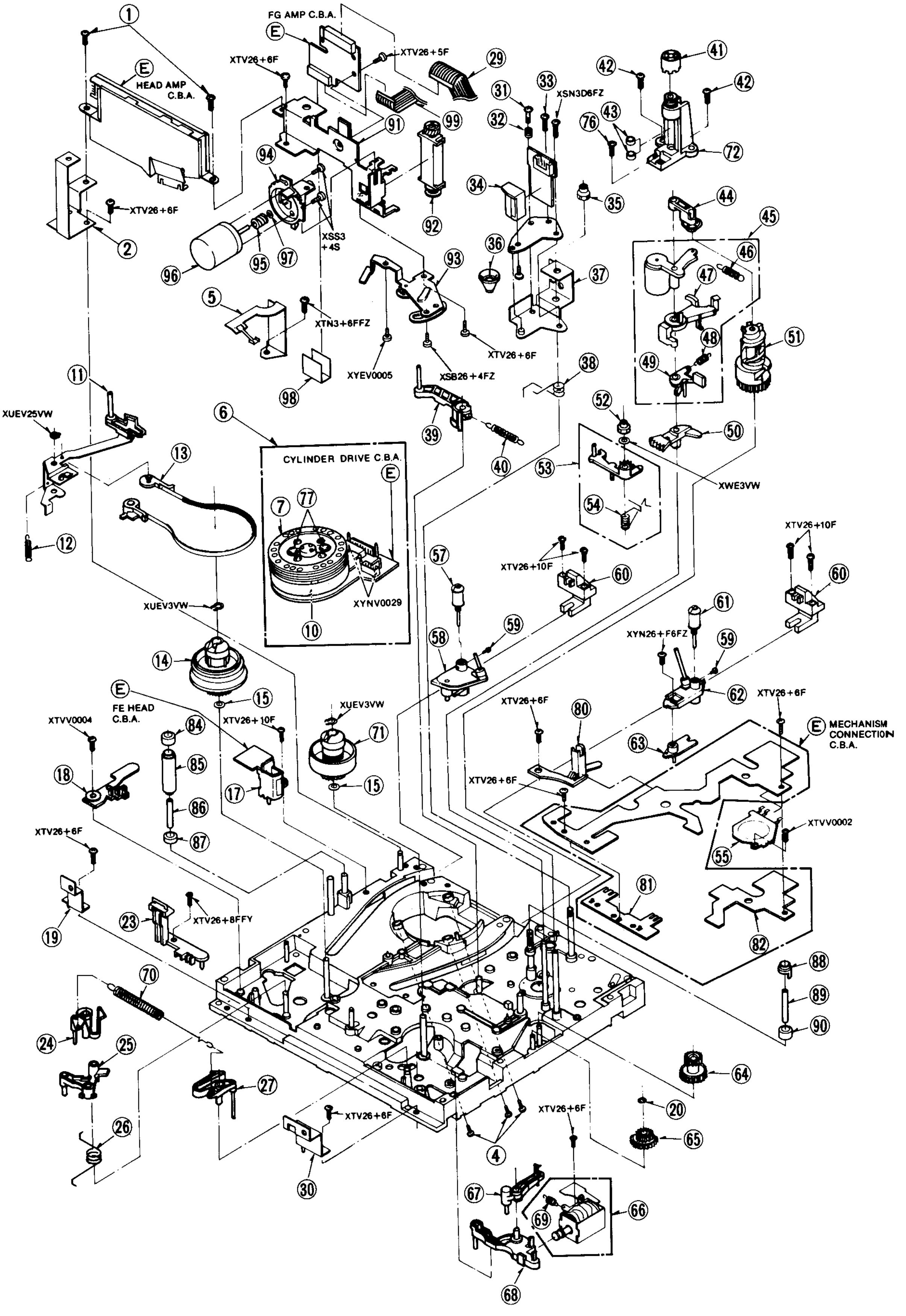


VEFH04F

Back Page:
INTERCONNECTION Section

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)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㉝
XSN3D6FZ
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㊷
㊷
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㊸
㉑
㊾
㊱
㉒
㉞
㉟
㊹
XTV26+6F
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②
㊿
㊱
㊳
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㊻
㊺
⑨6
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⑥
⑦
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XTV26+6F
⑪
XYEV0005
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⑨8
XUEV25VW
⑥
⑬
CYLINDER DRIVE C.B.A.
Ⓔ
⑦
⑦7
⑫
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⑩
⑭
⑮
Ⓔ
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XTVV0004
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⑱
XTV26+6F
⑲
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(60)
(61)
XYN26+F6FZ
(59)
(62)
XTV26+6F
(80)
(63)
XTV26+6F
Ⓔ MECHANISM CONNECTION C.B.A.
XTV26+6F
XTVV0002
(55)
(81)
(82)
(88)
(89)
(90)
(64)
⑳
(65)
(72)
(76)
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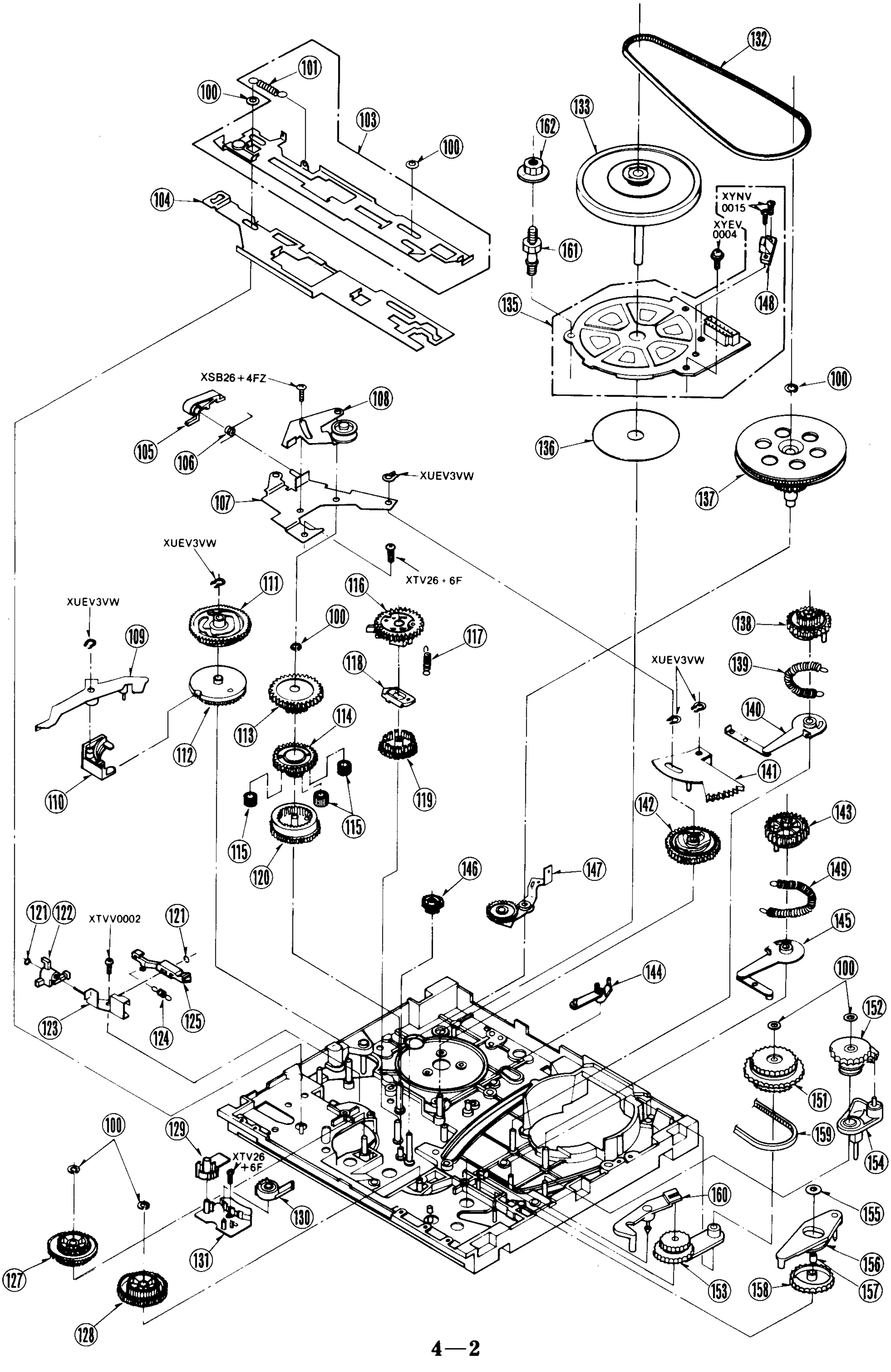
❷ CHASSIS PARTS SECTION (2)


101
100
103
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104
132
133
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XYNV 0015
XYEV 0004
161
148
135
100
XSB26+4FZ
108
105
106
136
137
XUEV3VW
107
XUEV3VW
XTV26+6F
111
116
XUEV3VW
109
100
117
138
118
XUEV3VW
139
140
113
114
112
141
110
115
119
115
142
143
120
146
147
149
121
122
XTVV0002
121
145
144
100
152
123
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124
151
159
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129
XTV26 +6F
154
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130
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157
127
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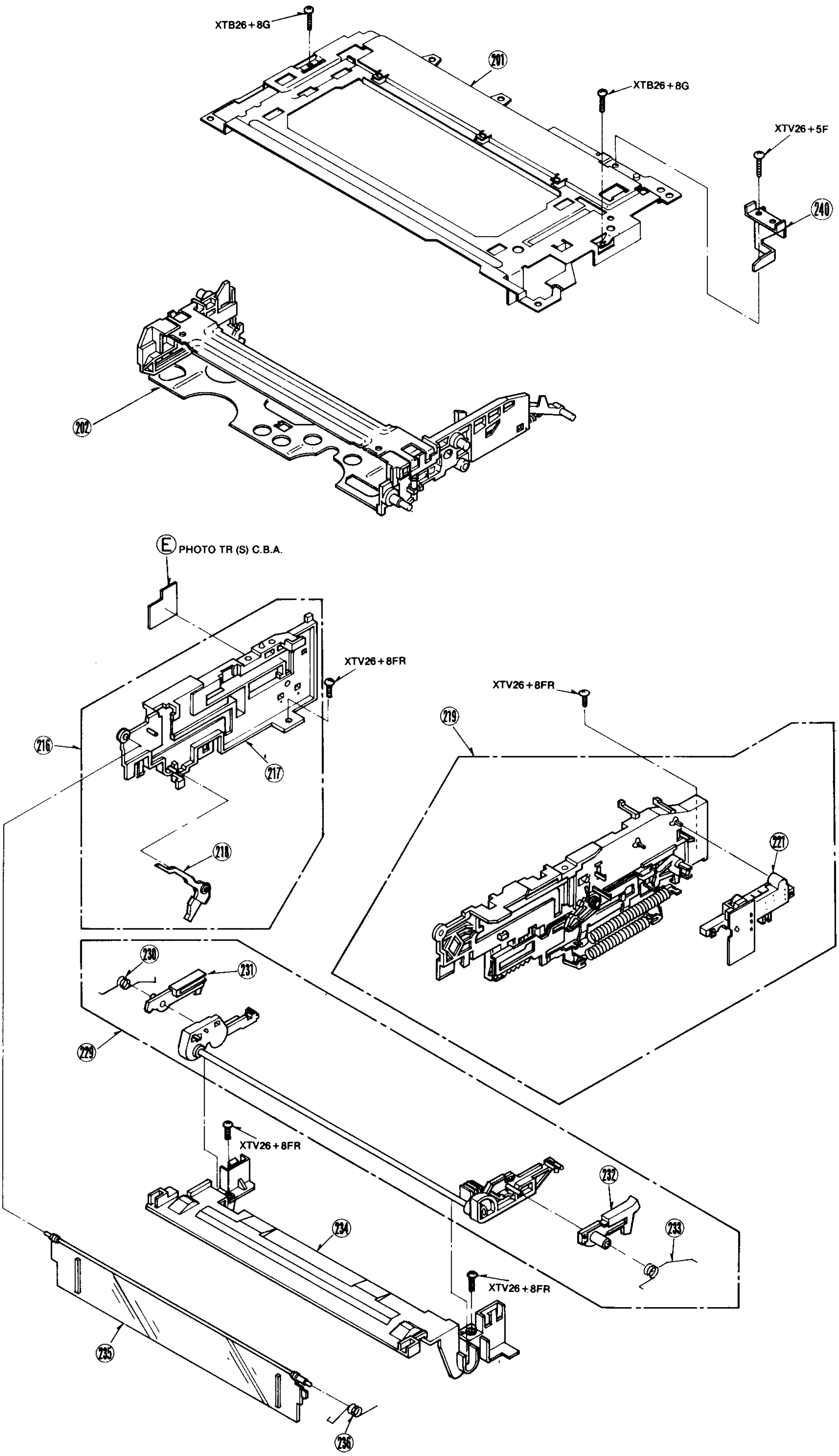
158
128

❸ CASSETTE UP MECHANISM SECTION


XTB26+8G
201
XTB26+8G
XTV26+5F
240
202
Ⓔ PHOTO TR (S) C.B.A.
XTV26+8FR
XTV26+8FR
216
217
218
219
221
230
231
229
XTV26+8FR
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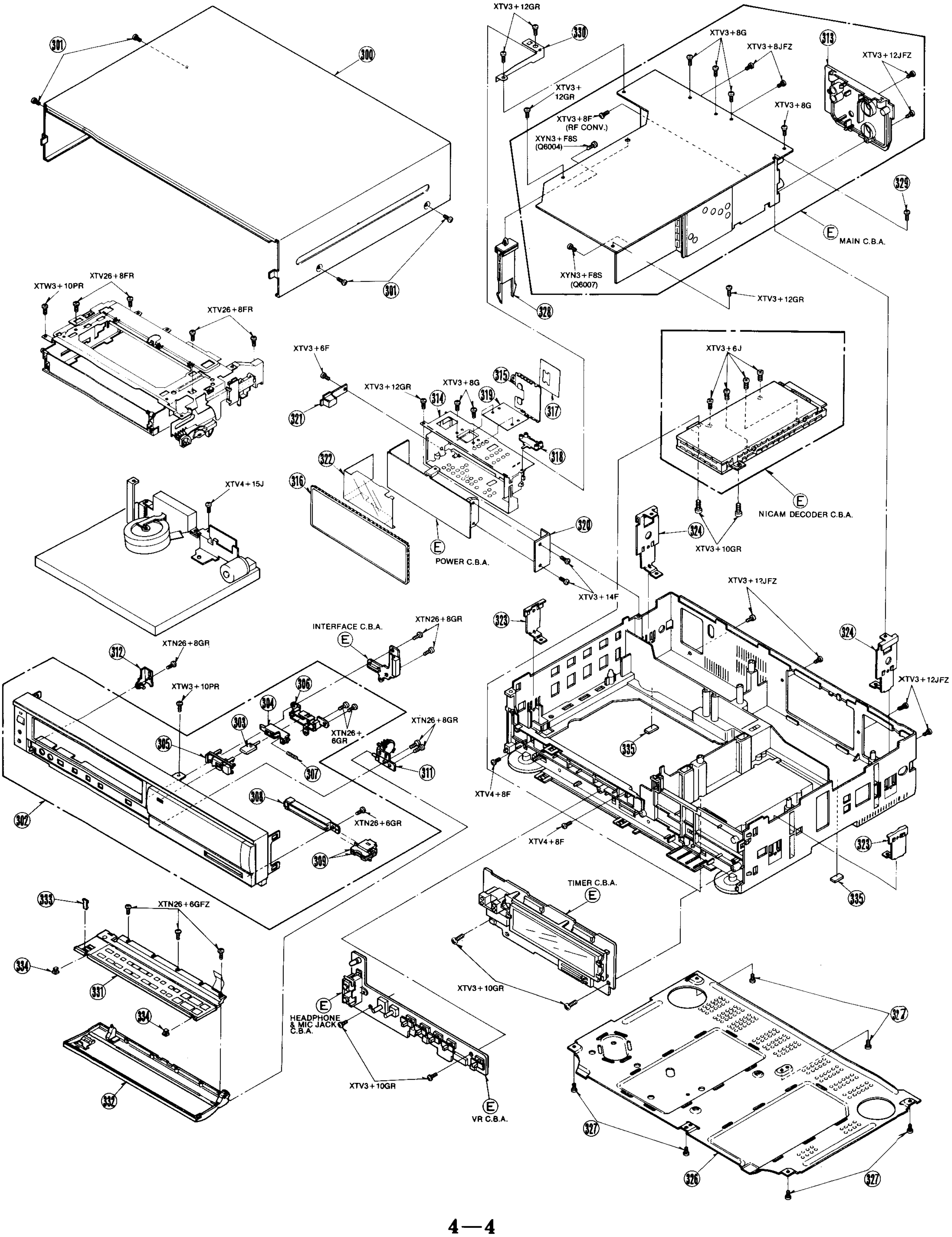
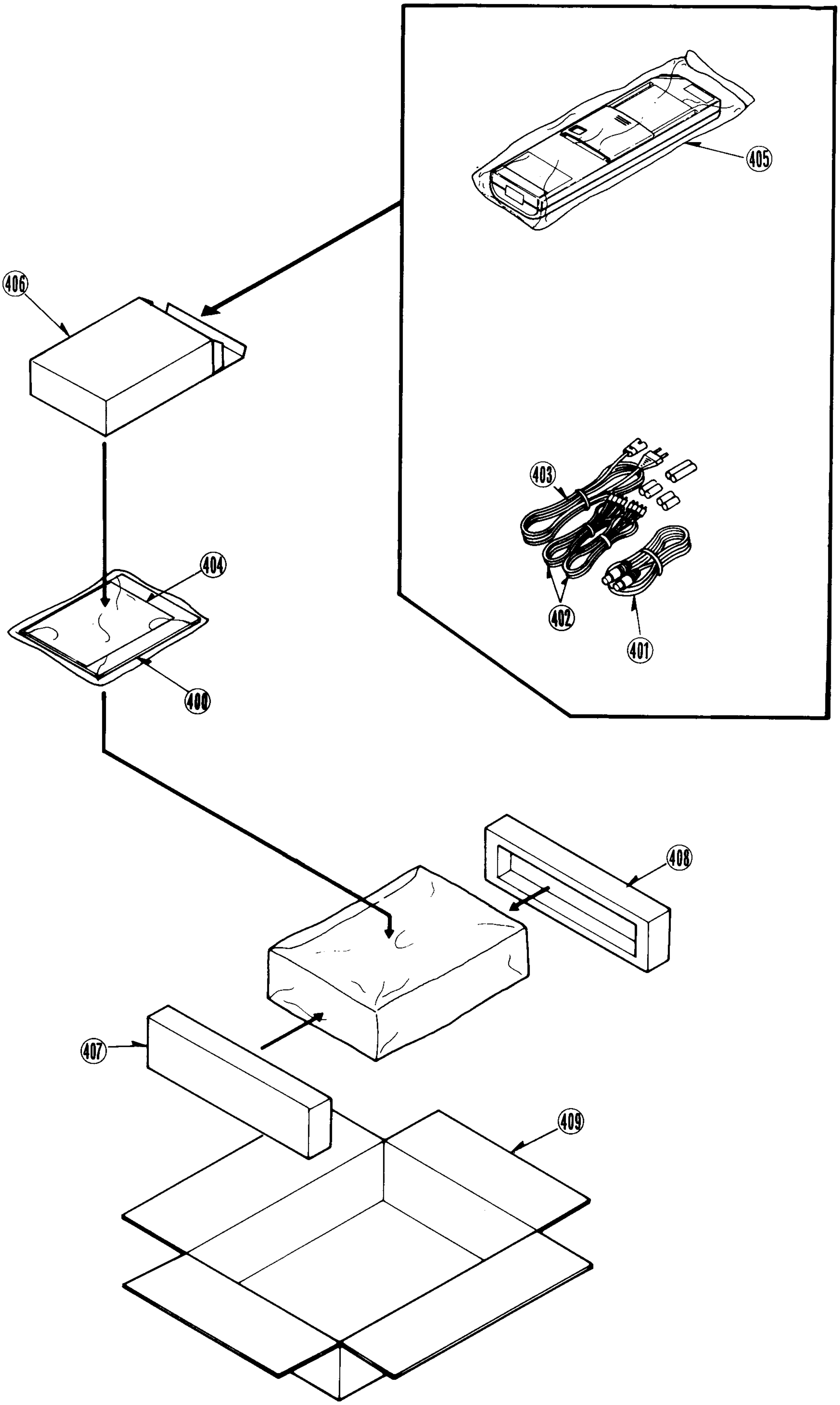
233
234
XTV26+8FR
235
236

❹ CASING PARTS SECTION



301
300
301
XTW3+10PR
XTV26+8FR
XTV26+8FR
XTV4+15J
XTV3+12GR
330
XTV3+8G
XTV3+8JFZ
313
XTV3+12JFZ
XTV3+12GR
XTV3+8F (RF CONV.)
XYN3+F8S (Q6004)
XTV3+8G
329
E MAIN C.B.A.
XYN3+F8S (Q6007)
XTV3+12GR
328
XTV3+6F
XTV3+12GR
XTV3+8G
315
314
319
317
321
318
322
316
E POWER C.B.A.
320
XTV3+14F
XTV3+6J
E NICAM DECODER C.B.A.
324
XTV3+10GR
XTV3+12JFZ
323
324
XTV3+12JFZ
312
XTN26+8GR
XTW3+10PR
INTERFACE C.B.A. E
XTN26+8GR
306
304
303
305
XTN26+6GR
307
XTN26+8GR
311
308
XTN26+6GR
309
302
335
XTV4+8F
XTV4+8F
323
335
TIMER C.B.A. E
333
XTN26+6GFZ
334
331
334
332
E HEADPHONE & MIC JACK C.B.A.
XTV3+10GR
XTV3+10GR
E VR C.B.A.
327
327
326
327

❺ PACKING PARTS SECTION


405
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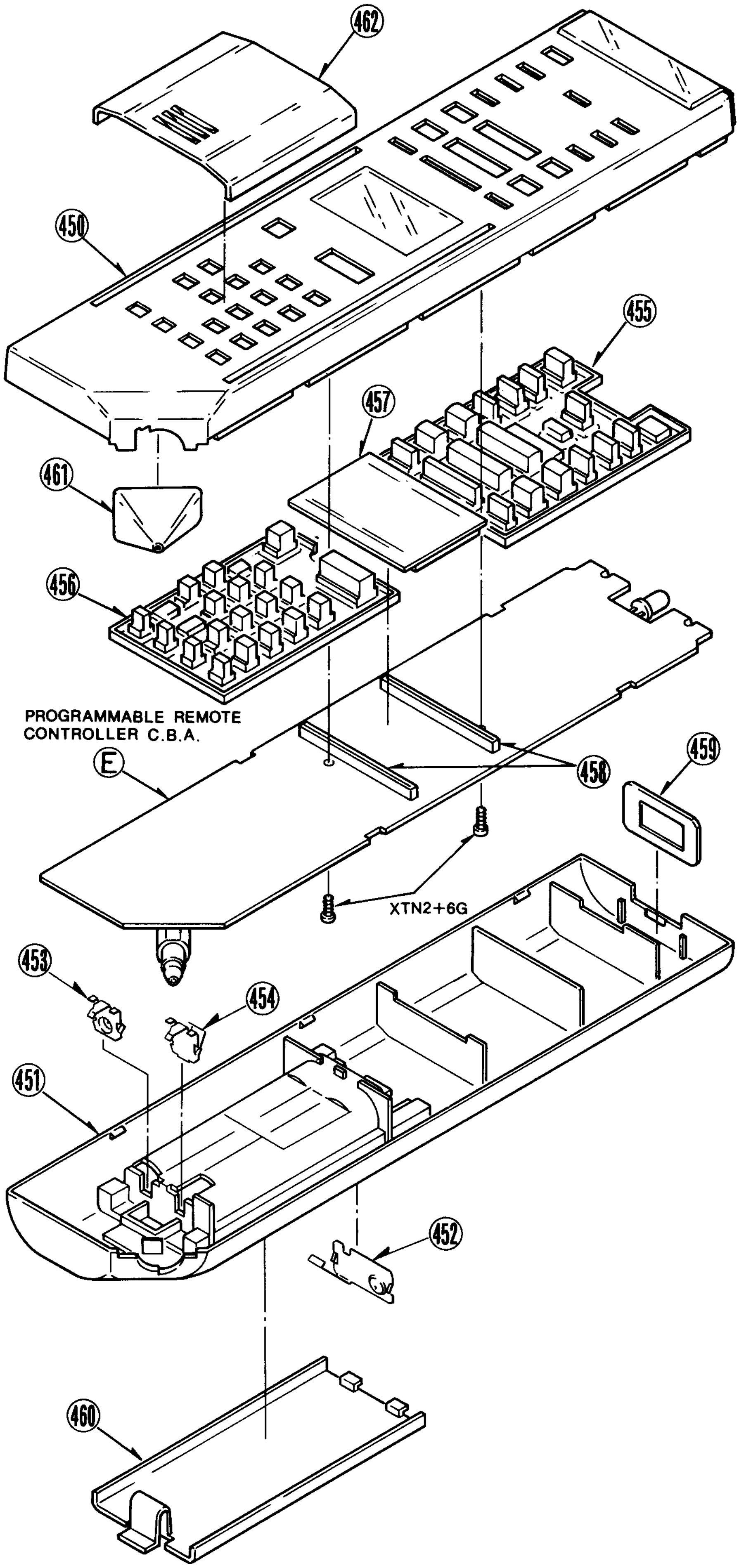
❻ REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) UNIT


462
450
455
457
461
456
PROGRAMMABLE REMOTE CONTROLLER C.B.A.
E
458
459
XTN2+6G
453
454
451
452
460

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
4(1)		VHD0342	CYLINDER SCREW	3	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0766	CYLINDER UNIT	1	<!>
7(1)		VEH0352	UPPER CYLINDER UNIT	1	
10(1)		VSC2188	CYLINDER C.B.A.SHIELD PLATE	1	
11(1)		VXL1855	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0179	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
17(1)		VBS0038	FE HEAD	1	
18(1)		VMD1316	TENSION SPRING HOOK	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	1	
23(1)		VES0486	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
29(1)		VWJ0427	FLEXIBLE CARD (18P)	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1910	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0597	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP1094	ROLLER POST UNIT	1	
62(1)		VXA3876	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA3735	SOLENOID UNIT	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB2012	MAIN BRAKE SPRING	1	
71(1)		VXR0176	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0553	UPPER CYLINDER SCREW	2	
80(1)		VXA3520	LED HOLDER UNIT	1	
81(1)		VMA7829	REINFORCEMENT PLATE(L)	1	
82(1)		VMA7830	REINFORCEMENT PLATE(R)	1	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX1581	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VMA7832	MOTOR MOUNT PLATE	1	
92(1)		VXA3517	WORM WHEEL BEARING UNIT	1	
93(1)		VXA3701	TENSION PULLEY BASE (A)	1	
			UNIT		
94(1)		VXA3564	REEL MOTOR BRACKET UNIT	1	
95(1)		VXP1158	WORM GEAR UNIT	1	
96(1)		VEM0320	REV MOTOR	1	
97(1)		VMX1734	WORM WASHER	1	
98(1)		VWJ15TW060M	FLEXIBLE CARD	1	
99(1)		VWJ0426	FLEXIBLE CARD (15P)	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1883	SUB LEVER SPRING	1	
103(2)		VXA3510	SUB LEVER UNIT	1	
104(2)		VMM0204	MAIN LEVER	1	
105(2)		VXL1873	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1031	TAKE UP REEL GEAR UNIT	1	
128(2)		VXP0981	SUPPLY REEL GEAR UNIT	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP1113	ROTOR UNIT	1	
135(2)		VEK4097	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP1050	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0516	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML2266	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
151(2)		VXP1029	REVIEW CLUTCH UNIT	1	
152(2)		VXP1030	TENSION RELEASE CLUTCH UNIT	1	
153(2)		VXL1851	REVIEW ARM UNIT	1	
154(2)		VML2197	TENSION RELEASE LEVER	1	
155(2)		VMX1536	CUT WASHER	1	
156(2)		VML2233	SUB CAM FOLLOWER	1	
157(2)		VMX1495	RUBBER STOPPER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
158(2)		VDG0517	SUB LEVER CAM	1	
159(2)		VDV0199	REVIEW CLUTCH TIMING BELT	1	
160(2)		VML2200	REVIEW CONTROL LEVER	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA3832	CASSETTE HOLDER UNIT	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3895	SIDE PLATE (R) UNIT	1	
221(3)		VXA4642	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM (L)	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VGM0481	TOP PANEL	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VYP3120	FRONT PANEL (1)UNIT	1	
303(4)		VGU5022	DOOR OPEN BUTTON	1	
304(4)		VGU5023	DOOR LOCK LEVER	1	
305(4)		VGQ1994	DOOR BUTTON HOLDER(A)	1	
306(4)		VGQ1995	DOOR BUTTON HOLDER(B)	1	
307(4)		VMB2126	LOCK LEVER SPRING	1	
308(4)		VGF0355	REC LEVEL SLIDER	1	
309(4)		VGU5020	REC LEVEL KNOB	2	
311(4)		VXA4008	DOOR ANGLE(R) UNIT	1	
312(4)		VXA4009	DOOR ANGLE(L) UNIT	1	
313(4)		VJH0588	RF & ANT BOARD	1	
314(4)		VXA3571	POWER SHIELD PLATE (MAIN)	1	
315(4)		VSC2397	POWER SHIELD PLATE (TOP)	1	
316(4)		VSC2237	POWER SHIELD PLATE (BOTTOM)	1	
317(4)		VGH1476	POWER NAME PLATE	1	
318(4)		VGQ1377	IC HOLDER	1	
319(4)		VMZ1224	INSULATION SHEET	1	
320(4)		VSC2238	HEAT SINK	1	
321(4)		VMP1734	SCREW STOPER ANGLE	1	
322(4)		VMZ1140	BARRIER	1	
323(4)		VMP0442	TOP HOLDER ANGLE (F)	2	
324(4)		VMP1855	TOP HOLDER ANGLE (R)	2	
326(4)		VKU0302	BOTTOM PLATE	1	
327(4)		VHD0059	BOTTOM PLATE SCREW	6	
328(4)		VKC0354	MAIN HING CLIP	1	
329(4)		VHD0418	MAIN SCREW	1	
330(4)		VMC0445	EARTH PLATE	1	
331(4)		VES0561	KEY BOARD PANEL UNIT	1	
332(4)		VYC0392	DOOR PANEL UNIT	1	
333(4)		VGL0432	PANEL LIGHT	1	
334(4)		VMT0212	CUSHION RUBBER	2	
335(4)		VKA0084	RUBBER FOOT	2	
400(5)		VQT3650	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH)		
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJA0231	AUDIO CABLE	2	
403(5)		VJA0568	AC CORD	1	<!>
404(5)		VQC1330	PROGRAMME SHEET	1	
405(5)		VEQ1122	REMOTE CONTROLLER UNIT	1	
			(BUILD IN DIGITAL SCANNER)		
406(5)		VPK0834	ACCESSORIES PACKING	1	
407(5)		VPN2716	CUSHION (L)	1	
408(5)		VPN2717	CUSHION (R)	1	
409(5)		VPG5326	PACKING	1	
450(6)		VYK3068	TOP COVER UNIT	1	
451(6)		VKM2169	BOTTOM COVER	1	
452(6)		VJR0498	ELECTRODE (COMMON)	1	
453(6)		VJR0585	ELECTRODE (+)	1	
454(6)		VJR0584	ELECTRODE (-)	1	
455(6)		VSP0389	RUBBER CONTACT (A)	1	
456(6)		VSP0499	RUBBER CONTACT (B)	1	
457(6)		VSL0200	LCD	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
458(6)		VMT0297	CONDUCTIVE RUBBER	2	
459(6)		VKW0878	IR WINDOW	1	
460(6)		VKF1455	BATTERY COVER	1	
461(6)		VGQ1640	SENSOR CAP	1	
462(6)		VKF1445	SLIDE DOOR	1	
			SERVICING FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE	1	(PAL)
		VFK0335	RETAINING RING REMOVER	1	(3mm/4mm)
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHIT GAUGE	1	
		VFK0328	H-POSITION ADJUSTMENT	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHIT ADJUSTMENT FIXTURE	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03703F	MAIN C.B.A.	1	(NLA)<!>
					INCLUDING THE
					LUMINANCE & CHRO-
					MINANCE PACK C.B.A.
					(VEP03627D),HI-FI
					AUDIO PACK C.B.A
					(VEP04285B),
					INPUT/OUTPUT PACK
					C.B.A.(VEP04282C),SUB
					SYSTEM CONTROL PACK
					C.B.A.(VEP06648B),
					TV DEMODULATOR PACK
					C.B.A.(VEP07592E),SUB
					NICAM PACK C.B.A.
					(VEP07548A)
		VEP03627D	LIMINANCE & CHROMINANCE	1	(NLA)
			PACK C.B.A.		
		VEP04285B	HI-FI AUDIO PACK C.B.A.	1	(NLA)
		VEP04282C	INPUT/OUTPUT PACK C.B.A.	1	(NLA)
		VEP06648B	SUB SYSTEM CONTROL PACK	1	(NLA)
			C.B.A.		
		VEP07592E	TV DEMODULATOR PACK C.B.A.	1	(NLA)
		VEP07548A	SUB NICAM C.B.A.	1	(NLA)
		VEP05150B	HEAD AMP C.B.A.	1	(NLA)
		VEP06617A	VR C.B.A.	1	(NLA)
					INCLUDING THE MIC &
					HEAD PHONE JACK
					C.B.A.(VEP00P39A)
		VEP00P39A	MIC & HEAD PHONE JACK	1	(NLA)
			C.B.A.		
		VEP07549A	NICAM DECODER C.B.A.	1	(NLA)
		VEP00P74A	INTERFACE C.B.A.	1	(NLA)
		VEP07581D	TIMER C.B.A.	1	(NLA)
					INCLUDING THE IR
					RECEIVER C.B.A.
					(VEP06633A)
		VEP06633A	IR RECEIVER C.B.A.	1	(NLA)
		VEP01420A	POWER C.B.A.	1	(NLA)<!>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP00K88C	FE HEAD C.B.A.	1	(NLA)
		VEP00M86A	FG AMP C.B.A.	1	(NLA)
		VEX0113	CYLINDER DRIVE C.B.A.	1	(NLA)
		VXA3825	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3578	PHOTO TR (S) C.B.A.	1	(NLA)
		VEP66125A	REMOTE CONTROLLER C.B.A.	1	(NLA)
F1101		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
		VWJ0426	FLEXIBLE CARD (15P)	1	P6001-P1504
		VWJ0427	FLEXIBLE CARD (18P)	1	P2001-P1505
	■	VEP03703F	MAIN C.B.A.		(NLA)<!>
			CAPACITORS		
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C308		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311,12		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C315		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C317		ECEA1AK470	E.CAPACITOR 10V 47U	1	
C319		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C320		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C324		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C325,26		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C331		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C335		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C336		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C337		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C338		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C339		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C349		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C351		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C353		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C360		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C601		ECEA1CK101	E.CAPACITOR 16V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C602		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C603		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C706		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C708		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C717-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C732		ECQV1H224B0	P.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C735		ECUM1H070DCN	C.CAPACITOR CH 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUM1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270JSN	C.CAPACITOR CH 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUM1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C748		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C760		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C782		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C814		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H391KBN	C.CAPACITOR CH 50V 390P	1	
C819		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	C.CAPACITOR CH 50V 5P	1	
C828		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C831,32		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C2001		ECQB1H223JZ	F.CAPACITOR 50V 0.022U	1	
C2002		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C2003		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2004		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C2005		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2006-08		ECQB1H333KZ	P.CAPACITOR 50V 0.033U	3	
C2009		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2010		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2011-13		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2014		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C2015		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2016		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C2017		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2018		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2019		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2020		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C2021		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2022		ECEA1HKN3R3	E.CAPACITOR 50V 3.3U	1	
C2023		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2024		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C2025		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2029		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2031		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2032		ECQV1H184JZ	P.CAPACITOR 50V 0.18U	1	
C2033		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3001		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3002		ECEA1CK470	E.CAPACITOR 16V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3003		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3005		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3007		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3009		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3010		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3011		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3012		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3013,14		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	2	
C3015		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3017		ECEA0JFE680	E.CAPACITOR 6.3V 68U	1	
C3018		ECQB1H332KZ	P.CAPACITOR 50V 3300P	1	
C3601		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C3602		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3604		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3605		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3608		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3609		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3610		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3611		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3612		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3613		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3616		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3617		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3618		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
C3620		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3621		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3622		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3623		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3913		ECEA1CU331	E.CAPACITOR 16V 330U	1	
C3914		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3915		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3916-19		ECEA1CK220	E.CAPACITOR 16V 22U	4	
C3921		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C3922-24		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C3925		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C4001		ECQB1H103KZ	F.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4004		ECQP1H222JZ	P.CAPACITOR 50V 2200P	1	
C4005		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H471JN	C.CAPACITOR CH 50V 470P	1	
C4014		ECCF1H221JC	C.CAPACITOR 50V 220P	1	
C4015		ECEA16M10R	E.CAPACITOR 16V 10.U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4017		ECEA10M22R	E.CAPACITOR 10V 22.U	1	
C4018		ECQB1H822JZ	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JN	C.CAPACITOR CH 50V 100U	2	
C4026		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4028		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4029		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C4031		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4037		ECQB1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4101		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4103		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4104		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4106		ECEA1APK470	E.CAPACITOR 10V 47U	1	
C4107		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4108		ECEA1CPK101	E.CAPACITOR 16V 100U	1	
C4110,11		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C4112		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4114,15		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	2	
C4125		ECUM1H471JN	C.CAPACITOR CH 50V 470P	1	
C4130		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4135		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C4136		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4141		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4501		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4502		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4503		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4504		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4505		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4506		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4507		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4508		ECEA1EPH4R7	E.CAPACITOR 25V 4.7U	1	
C4509		VCEA1CAH470	E.CAPACITOR 25V 47UF	1	
C4510		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4511		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4512		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4513,14		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	2	
C4515		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4516		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4517		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4518,19		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4520		VCEA1CAH100	E.CAPACITOR 25V 10UF	1	
C4521		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4522		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4525		ECEA1CPZ220	E.CAPACITOR 16V 22U	1	
C4526		VCEA1CAH470	E.CAPACITOR 25V 47UF	1	
C4527		VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4528		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C4529		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4530		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C4531		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C4532		ECEA1CPZ471	E.CAPACITOR 16V 470U	1	
C4533		ECEA1CPZ221	E.CAPACITOR 16V 220U	1	
C4534		VCEA1AAH101	E.CAPACITOR 10V 100U	1	
C4535		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4537		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C4538		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4539		ECQV1H274JZ	P.CAPACITOR 50V 0.27U	1	
C4540-42		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C4543		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4544		ECQB1H222JZ	P.CAPACITOR 50V 2200P	1	
C4545		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	1	
C4551		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4552		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4553		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4554		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4555		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4556		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4557		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4558		ECEA1EPH4R7	E.CAPACITOR 25V 4.7U	1	
C4559		VCEA1CAH470	E.CAPACITOR 25V 47UF	1	
C4560		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4561		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4562		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4563,64		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	2	
C4565		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4566		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4567		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4568,69		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4570		VCEA1CAH100	E.CAPACITOR 25V 10UF	1	
C4572		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4574,75		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C4576		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4594		ECQB1H222JZ	P.CAPACITOR 50V 2200P	1	
C4903,04		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4905,06		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	2	
C4911,12		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4918		VCEA1HAC3R3	E.CAPACITOR 50V 3.3U	1	
C4920,21		VCEA1CAD100J	E.CAPACITOR 16V 10U	2	
C4922		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4923		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C4924-26		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C4927		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4928		VCEA1CAC101	E.CAPACITOR 16V 100U	1	
C4929		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4932,33		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6001		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6002		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6003		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6004		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6005		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6006		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6008		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6009		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6010-12		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C6013		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6014,15		ECEA1AK330	E.CAPACITOR 10V 33U	2	
C6016		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6018		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6019		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6020		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6021		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6022		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C6023		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C6024		ECQB1H223KZ	P.CAPACITOR 50V 0.022U	1	
C6025		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C6026		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C6027		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C6028		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6029		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6031,32		ECUM1H271KBN	C.CAPACITOR CH 50V 270P	2	
C6033		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6034		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C6035		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6036		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6037		ECQB1H332KZ	P.CAPACITOR 50V 3300P	1	
C6038		ECQB1H562KZ	P.CAPACITOR 50V 5600P	1	
C6040		ECEA1VFE820	E.CAPACITOR 35V 82U	1	
C6041		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6042		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6043		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C6044		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6045		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6047		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6048		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6049		ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C6050		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6051		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C6052		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6053		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6054		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C6055		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6056		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6057		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6058		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C6059		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6060,61		ECEA1HKN010	E.CAPACITOR 50V 1U	2	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H392JH	P.CAPACITOR 50V 3900P	1	
C7654		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7655,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7657		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7658		ECQP1H562JZ	P.CAPACITOR 50V 5600P	1	
C7659		ECQB1H272JH	P.CAPACITOR 50V 2700P	1	
C7661		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7662		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7663		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7664		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7665,66		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7667		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7675		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7676,77		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7678		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7680		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7681,82		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7951		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C7953		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7954		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C7955-59		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	5	
C7961		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C7962		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7963		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7964		ECUM1H270JSN	C.CAPACITOR CH 50V 27P	1	
C7965		ECUM1H030DCN	C.CAPACITOR CH 50V 3P	1	
C7966		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7967		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7968,69		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C7970		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7971		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7972		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7973,74		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7975		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7976,77		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7978		ECEA1CK100	E.CAPACITOR 16V 10U	1	
D301		MA4091	DIODE	1	
D601		1SS254	DIODE	1	
D710		MA3100L	DIODE	1	
D771		MA151WK	DIODE	1	
D772		MA165	DIODE	1	
D773		MA151K	DIODE	1	
D2009		MA153	DIODE	1	
D2011		MA153	DIODE	1	
D3001-03		1SS254	DIODE	3	
D3004		MA723	DIODE	1	
D3005,06		1SS254	DIODE	2	
D3901		1SS254	DIODE	1	
D3903		1SS254	DIODE	1	
D4003-06		1SS254	DIODE	4	
D4101		1SS254	DIODE	1	
D4901		MA4068L	DIODE	1	
D6001,02		1SS254	DIODE	2	
D6005		1SS254	DIODE	1	
D6006		MA723	DIODE	1	
D6008,09		MA723	DIODE	2	
D6010,11		1SS254	DIODE	2	
D6013		MA204WK	DIODE	1	
D6014		MA4075M	DIODE	1	
D6015		1SS254	DIODE	1	
D6018		MA4091M	DIODE	1	
D6019		1SS254	DIODE	1	
D6020		AK04V2	DIODE	1	
D6022,23		1SS254	DIODE	2	
D6026,27		1SS254	DIODE	2	
D6030-39		1SS254	DIODE	10	
D6101		MA4062M	DIODE	1	
D7601		MA151A	DIODE	1	
D7602		MA3082M	DIODE	1	
D7951		MA3100L	DIODE	1	
D7952		MA151K	DIODE	1	
DL802		VLD0147	DELAY	1	
F6001		VSF0077	FUSE 250V 3A	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		ELB4W002	FILTER	1	
FL4503		VLF0697	FILTER	1	
FL7951		VLF0702	FILTER	1	
IC301		VEFH03D	HIC	1	
IC303		MSM6965-3RS	IC	1	
IC601		MN15522VSSC	IC	1	
IC602		LM393P	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC701		M51366SP	IC	1	
IC801		VEFH04F	HIC	1	
IC2001		BA6435S	IC	1	
IC2002		LM358P	IC	1	
IC2004		UPC358G	IC	1	
IC3901		M51292FP	IC	1	
IC3902		BA7004	IC	1	
IC4001		BA7766AS	IC	1	
IC4101		RC4565DD	IC	1	
IC4501		BA7705K1	IC	1	
IC4502		UPC78L05J	IC	1	
IC4901		M51293FP	IC	1	
IC4902		UPC78L06T	IC	1	
IC6001		MN6743VRDA4	IC	1	
IC6002		MN1280R	IC	1	
IC6003		MC14519BCP	IC	1	
IC6004		LM393PS	IC	1	
IC6005		AN6609N	IC	1	
IC7651		AN5421	IC	1	
IC7652		AN5043	IC	1	
IC7653		MN4066BS	IC	1	
IC7951		M51366SP	IC	1	
J3901		VJS1469	CONNECTOR(FEMALE)	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303,04		VLQEL05F101K	COIL 100UH	2	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L311		VLQEL05F2R2K	COIL 2.2UH	1	
L701		ELESP680KA	COIL 68UH	1	
L713,14		VLQ0305J1R2	COIL 1.2UH	2	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP150KA	COIL 15UH	1	
L720		ELESP680KA	COIL 68UH	1	
L804		VLQEL05F150K	COIL 15UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F391K	COIL 390UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L2002		ELESP102KA	COIL 1000UH	1	
L2003		ELESP101KA	COIL	1	
L3001		ELESP101KA	COIL	1	
L3601		ELESP101KA	COIL	1	
L3602		ELESP270JA	COIL H	1	
L3604		ELESP6R8JA	COIL H	1	
L3609		ELESP101KA	COIL	1	
L3610		ELESP120KA	COIL 12UH	1	
L3611		ELESP820KA	COIL 82UH	1	
L3615		ELESP151KA	COIL H	1	
L3617		ELESP101KA	COIL	1	
L3901,02		ELESP101KA	COIL	2	
L4001		VLQEL07R153J	COIL 15H	1	
L4002		ELESP471KA	COIL	1	
L4102		ELESP1R0KA	COIL 1UH	1	
L4106		ELESP101KA	COIL	1	
L4501,02		ELESP101KA	COIL	2	
L4503,04		VLQ0422	COIL	2	
L6001		VLP0074	COIL	1	
L6002,03		ELESP101KA	COIL	2	
L7952		ELESP680KA	COIL 68UH	1	
L7953		VLQ0305JR82T	COIL 0.82UH	1	
L7955		ELESP680KA	COIL 68UH	1	
L7957		ELESP680KA	COIL 68UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P001		VJS1232T	CONNECTOR (FEMALE)	1	
P501		VJS1238T	CONNECTOR (FEMALE)	1	
P551		VJS1236T	CONNECTOR (FEMALE)	1	
P1001		VJS2593	CONNECTOR (FEMALE)	1	
P1101		VJS1931T	CONNECTOR (FEMALE)	1	
P1532		VJS1141T	CONNECTOR (FEMALE)	1	
P2001		VJS1666	CONNECTOR (FEMALE)	1	
P2002		VJP1232T	CONNECTOR (MALE) 5P	1	
P2002		VJS1232T	CONNECTOR (FEMALE)	1	
P2003		VJP1229T	CONNECTOR (MALE) 2P	1	
P3001		VJP1238T	CONNECTOR (MALE) 11P	1	
P3001		VJS1238T	CONNECTOR (FEMALE)	1	
P4001		VJP1231T	CONNECTOR (MALE) 4P	1	
P4002		VJP1236T	CONNECTOR (MALE) 9P	1	
P4002		VJS1236T	CONNECTOR (FEMALE)	1	
P4003		VJP1231T	CONNECTOR (MALE) 4P	1	
P4003		VJS1231T	CONNECTOR (FEMALE)	1	
P4004		VJS1229T	CONNECTOR (FEMALE)	1	
P4004		VJS1668	CONNECTOR	1	
P4005		VJS1666	CONNECTOR (FEMALE)	1	
P4901		VJP1244T	CONNECTOR (MALE) 4P	1	
P4901		VJS1231T	CONNECTOR (FEMALE)	1	
P6001		VJS1477	CONNECTOR (FEMALE)	1	
P6002		VJP2593	CONNECTOR (MALE)	1	
P6004		VJS2571A004	CONNECTOR (FEMALE)	1	
P6005		VJP1239T	CONNECTOR (MALE) 12P	1	
P6005		VJS1239T	CONNECTOR (FEMALE)	1	
P6006		VJP1229T	CONNECTOR (MALE) 2P	1	
P6501		VJS1239T	CONNECTOR (FEMALE)	1	
P6502		VJS1231T	CONNECTOR (FEMALE)	1	
P6503		VJS1230T	CONNECTOR (FEMALE)	1	
P6504		VJS1231T	CONNECTOR (FEMALE)	1	
P7301		VJF0171T	CONNECTOR	1	
P7504		VJS1230T	CONNECTOR (FEMALE)	1	
P7951		VJF0171T	CONNECTOR	1	
P7951		VJP1394T	CONNECTOR (MALE)	1	
Q301		MSB709	TRANSISTOR	1	
Q302,03		MSC2295	TRANSISTOR	2	
Q304		MSD601	TRANSISTOR	1	
Q601		2SB790	TRANSISTOR	1	FOR RADER CUNTERMEA
					SURE
Q602		2SB790	TRANSISTOR	1	(R,S)
Q603		2SA1309	TRANSISTOR	1	
Q604		2SB790	TRANSISTOR	1	(R,S)
Q703		2SD601	TRANSISTOR	1	(S,T)
Q712		2SD638	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR CHIP	1	(S,T)
Q771		2SD601	TRANSISTOR	1	(S,T)
Q772		2SD601	TRANSISTOR CHIP	1	(S,T)
Q804		MSB709	TRANSISTOR	1	
Q3001		2SC3311	TRANSISTOR	1	
Q3002		2SA1309	TRANSISTOR	1	
Q3004,05		MSD601	TRANSISTOR	2	
Q3601		MSC2295	TRANSISTOR	1	
Q3602		MSB709	TRANSISTOR	1	
Q3603,04		MSC2295	TRANSISTOR	2	
Q3606		MSD601	TRANSISTOR	1	
Q3901		MSD601	TRANSISTOR	1	
Q4001		2SD1992A	TRANSISTOR	1	(R)
Q4501		MSD601	TRANSISTOR	1	
Q4502,03		2SD1306	TRANSISTOR	2	
Q4504		MSB709	TRANSISTOR	1	
Q4901		2SB644	TRANSISTOR	1	
Q6001		2SD893	TRANSISTOR	1	
Q6002		2SC3311	TRANSISTOR	1	
Q6003		2SD592	TRANSISTOR	1	
Q6004		2SD1273	TRANSISTOR	1	(P)
Q6005		MSD601	TRANSISTOR	1	
Q6007		2SD1273	TRANSISTOR	1	(P)
Q6008		2SD1992	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q6009		2SC3311	TRANSISTOR	1	
Q6019		2SC2295	TRANSISTOR	1	
Q6020		MSD601	TRANSISTOR	1	
Q6021		2SD1273	TRANSISTOR	1	(P)
Q7951		2SC1047	TRANSISTOR	1	
Q7952		2SB709	TRANSISTOR	1	(S,T)
Q7953		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q7954		2SC1317	TRANSISTOR	1	
Q7955		2SB709	TRANSISTOR	1	(S,T)
QR601		UN2213	TRANSISTOR-RESISTOR	1	FOR RADER COUNTERMEA
					SURE
QR602,03		MRN1404	TRANSISTOR-RESISTOR	2	
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
QR2009		MRN2403	TRANSISTOR-RESISTOR	1	
QR2013		MRN2404	TRANSISTOR-RESISTOR	1	
QR2014		MRN1404	TRANSISTOR-RESISTOR	1	
QR2015		MRN2404	TRANSISTOR-RESISTOR	1	
QR3001		MRN1403	TRANSISTOR-RESISTOR	1	
QR3003		MRN2402	TRANSISTOR-RESISTOR	1	
QR3004		DTC363EK	TRANSISTOR-RESISTOR	1	
QR3005		MRN1407	TRANSISTOR-RESISTOR	1	
QR3006		MRN1403	TRANSISTOR-RESISTOR	1	
QR3007		MRN1402	TRANSISTOR-RESISTOR	1	
QR3009		MRN1403	TRANSISTOR-RESISTOR	1	
QR3902-04		MRN1404	TRANSISTOR-RESISTOR	3	
QR4001		MRN1404	TRANSISTOR-RESISTOR	1	
QR4102		MRN2404	TRANSISTOR-RESISTOR	1	
QR4103,04		MRN2403	TRANSISTOR-RESISTOR	2	
QR4105		MRN1404	TRANSISTOR-RESISTOR	1	
QR4108		MRN1404	TRANSISTOR-RESISTOR	1	
QR4109		MRN1403	TRANSISTOR-RESISTOR	1	
QR4110		UN1213	TRANSISTOR-RESISTOR	1	
QR4501,02		MRN1404	TRANSISTOR-RESISTOR	2	
QR6001		MRN1404	TRANSISTOR-RESISTOR	1	
QR6002		MRN1402	TRANSISTOR-RESISTOR	1	
QR6003,04		MRN2404	TRANSISTOR-RESISTOR	2	
QR6005		MRN2402	TRANSISTOR-RESISTOR	1	
QR6006		MRN1404	TRANSISTOR-RESISTOR	1	
QR6007		MRN1403	TRANSISTOR-RESISTOR	1	
QR6008-10		MRN1404	TRANSISTOR-RESISTOR	3	
QR6011		MRN1403	TRANSISTOR-RESISTOR	1	
QR6012		MRN2404	TRANSISTOR-RESISTOR	1	
QR6014		MRN1404	TRANSISTOR-RESISTOR	1	
QR6015		MRN1402	TRANSISTOR-RESISTOR	1	
QR6016		MRN1404	TRANSISTOR-RESISTOR	1	
QR6023		MRN2404	TRANSISTOR-RESISTOR	1	
QR6024		MRN1404	TRANSISTOR-RESISTOR	1	
QR6026		MRN1404	TRANSISTOR-RESISTOR	1	
QR6029,30		MRN1404	TRANSISTOR-RESISTOR	2	
QR7601		UN2213	TRANSISTOR-RESISTOR	1	
QR7952		UN2217	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R301		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R302		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R303		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R304		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R305		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R306		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R307		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R308		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R309		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R310		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R311		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R312		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R317		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R320		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R325		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R326		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R327		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R328		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R329		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R330		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R331		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R332		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R338		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R339		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R601		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	FOR RADER COUNTERMEA
					SURE
R602		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	FOR RADER COUNTERMEA
					SURE
R603		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R604		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R605		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R606		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R607		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R608		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R609		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R610		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R611,12		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R613		ERJ6GEYJ184	M.RESISTOR CH 1/10W 180K	1	
R614		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R615		ERJ6GEYJ184	M.RESISTOR CH 1/10W 180K	1	
R616		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R617,18		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R619		ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R716		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R720		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R721		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 180K	1	
R724		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R739		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R751		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R756		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R757,58		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R763		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R764		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R774		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R815		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R816		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R818		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R819		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R820		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R821		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R822		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R823		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R824		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R825		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R2010		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2012		ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R2013		ERJ6GMYG153	M.RESISTOR CH 1/10W 15K	1	
R2014		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R2016		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2018		ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R2019		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2020,21		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2022,23		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R2024		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2025,26		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2027,28		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2029		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2030		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R2031		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2032		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R2033		ERJ6GMYG513	M.RESISTOR CH1/10W 51K	1	
R2034,35		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	2	
R2036		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R2038		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R2039-41		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	3	
R2042		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2043		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2044,45		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R2046,47		ERDS2TJ223	C.RESISTOR 1/4W 22K	2	
R3001		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3002		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3003		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3007		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3009		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3011		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3012		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3013		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3014		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3015		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3016,17		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R3018		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3019		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3020		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3021		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3022		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3023-25		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	3	
R3027		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3028		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3029		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3601,02		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	2	
R3603		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R3604		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3605		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R3606,07		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R3611		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3613		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3614		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3615		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R3617		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3618		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3619		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R3620,21		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R3901,02		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	2	
R3907		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3908		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3909,10		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	2	
R3911,12		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R3913		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3914		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3915		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3916		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3917		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3918		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3924		ERD2FCVG220	C.RESISTOR 2W 22	1	
R4001		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R4002		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4003		ERDS2TJ203	C.RESISTOR 1/4W 20K	1	
R4004,05		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R4006		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4007		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4008		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4009		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4010		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4011,12		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4015		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ242	M.RESISTOR CH1/10W 2.4K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4019		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4020		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4021		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4022		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4030		ERJ6GMYJ512	M.RESISTOR CH 1/10W 5.1K	1	
R4031		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4048		ERJ6GMYJ470	M.RESISTOR CH 1/10W 47	1	
R4049		ERJ6GMYJ820	M.RESISTOR CH1/10W 82	1	
R4053		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R4101		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4104		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4105		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4106		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4107		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4108		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4111		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4112		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4113,14		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	2	
R4115		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4116		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R4117		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4119		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R4121		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R4122		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4123		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4124		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4501		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4502		ERJ6GMYG681	M.RESISTOR CH 1/10W 680	1	
R4503		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4504		VRE0034E112	M.RESISTOR CH 1/10W 1.1K	1	
R4505		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4506		ERJ6GMYG183	M.RESISTOR CH 1/10W 18K	1	
R4507		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R4508		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	1	
R4511		ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R4512		VRE0034E912	M.RESISTOR CH 1/10W 9.1K	1	
R4513		VRE0034E272	M.RESISTOR CH 1/10W 2.7K	1	
R4514		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4515		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4516		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4517		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4520		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4521		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4522		ERJ6GMYJ225	M.RESISTOR CH 1/10W 2.2M	1	
R4523		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4525,26		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R4527		VRE0034E223	M.RESISTOR CH 1/10W 22K	1	
R4528		VRE0034E393	M.RESISTOR CH 1/10W 39K	1	
R4529		ERJ6GMYG163	M.RESISTOR CH1/10W 16K	1	
R4530		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4534		VRE0034E152	M.RESISTOR CH 1/10W 1.5K	1	
R4535		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4536		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4539		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4540		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4541		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4542		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4551		ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R4552		ERJ6GMYG681	M.RESISTOR CH 1/10W 680	1	
R4553		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4554		VRE0034E112	M.RESISTOR CH 1/10W 1.1K	1	
R4555		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4556		ERJ6GMYG183	M.RESISTOR CH 1/10W 18K	1	
R4557		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4558		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4561		ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R4562		VRE0034E113	M.RESISTOR CH 1/10W 11K	1	
R4563		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4564		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4565		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4566		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4567		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4573		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4574		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4576		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4577		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4578		VRE0034E223	M.RESISTOR CH 1/10W 22K	1	
R4902,03		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R4906,07		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R4910,11		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R4912,13		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R4914,15		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R4924		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4925		ERJ6GMYG203	M.RESISTOR CH1/10W 20K	1	
R4926		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4927		ERJ6GMYG163	M.RESISTOR CH1/10W 16K	1	
R4928		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4929,30		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4931		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4932		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4933		ERJ6GMYG163	M.RESISTOR CH1/10W 16K	1	
R4934		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4935		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4936		ERJ6GMYG203	M.RESISTOR CH1/10W 20K	1	
R4937		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4938		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4939		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4940		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4941		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4942		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R4943-46		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R6001		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6002		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6003		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6004,05		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	2	
R6006		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6007-09		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	3	
R6010,11		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6012-15		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R6016-21		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	6	
R6022,23		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6024		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6025		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6026		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6027		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6028		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6029		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6030		ERJ6GMYJ121	M.RESISTOR CH 1/10W 120	1	
R6031		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6032		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6033		ERG2SJ180	M.RESISTOR 2W 18	1	
R6034		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6036		ERDS1TJ332	C.RESISTOR 1/2W 3.3K	1	
R6037		EROS2CKG5601	M.RESISTOR 1/4W 5.6K	1	
R6038		ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	1	
R6039		ERJ6GMYG912	M.RESISTOR CH 1/10W 9.1K	1	
R6050		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R6051		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R6052		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6053		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6054		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6055		ERSF30JR90U	M.RESISTOR 0.9	1	
R6056,57		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R6059		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6060		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6061		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6062		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6063		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6064		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6065		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6066		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6067		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6068		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6069		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6070,71		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6072		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6073		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6074		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6076		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6077		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6087		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R6095		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6096		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6100		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6101,02		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R6103		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6106		ERG1SJ120E	M.RESISTOR 1W 12	1	
R6107,08		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R6109		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R6110		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6113		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6114		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6115		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6116,17		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6118		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6119		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6120		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6123-25		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	3	
R6126		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6128		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R6129,30		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R7651		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7654		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7655		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7656		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R7657		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7658		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7659		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R7661		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7662		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7663		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7664		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7671,72		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7673		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7674		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R7675		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7676		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7677		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7678		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R7679		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7680		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7681,82		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7683		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R7684		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7691		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7692		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7694		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7695		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7696		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R7951		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R7956		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R7957		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7958		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R7959		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R7960		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R7961		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R7962		ERD2FCG330	C.RESISTOR 2W 33	1	
R7963		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7964		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R7965		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R7966		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R7967		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R7968		VREO04OE471	V.RESISTOR 470	1	
R7969		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7971		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R7972		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R7973		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7974		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R7975,76		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R7978		ERJ6GEYJ150	M.RESISTOR CH 1/10W 15	1	
R7979		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R7980		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
SW4901		VSS0236	SWITCH	1	
T703		EIV5EC005A	TRANSFORMER	1	
T704		EIV5EC007A	TRANSFORMER	1	
T711		EIS5EC008A	TRANSFORMER	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
T7951		EIV5EC005A	TRANSFORMER	1	
VR302		EVN3ACA00B23	V.RESISTOR 2K	1	
VR701		EVNDRAA00B23	V.RESISTOR 2K	1	
VR751		EVNDRAA00B53	V.RESISTOR 5K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2005		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2010		EVN58AA00B25	V.RESISTOR 200K	1	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2019		EVNDRAA00B15	V.RESISTOR 100K	1	
VR3012		EVNDRAA00B52	V.RESISTOR 500	1	
VR4001		EVNDRAA00B14	V.RESISTOR 10K	1	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
VR4004		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4501		EVMFNGA00B14	V.RESISTOR 10K	1	
VR4502		EVMF8GA00B24	V.RESISTOR 20K	1	
VR4507		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4509		EVMFNGA00B53	V.RESISTOR 5K	1	
VR4512		EVND1AA00B22	V.RESISTOR 200	1	
VR7660		EVM4LGA00B23	V.RESISTOR 2K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X601		VSX0258	CRYSTAL OSC.	1	
X710		EFCH39MGP1	CRYSTAL OSCILLATOR	1	
X711		EFCS6R0MW5	CRYSTAL OSCILLATOR	1	
X712		EFCS6R0MS5	CRYSTAL OSCILLATOR	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3901		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSX0244	CRYSTAL OSCILLATOR	1	
X6002		VSQ0565	CRYSTAL OSCILLATOR	1	
X7951		EFCH39MQS1	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	FOR IC2001
		VSC2734	HEAT SINK	1	FOR IC2001
		VMP2631	HEAT SINK FIX SPRING	1	FOR Q6004
		VSC1068	HEAT SINK	1	FOR Q6004
		VSC3102	HEAT SINK	1	FOR Q6007
		VJH0588	ANT TERMINAL BOARD	1	
		ENC17972B	RF CONVERTER UNIT	1	<!>
		VMZ1352	HEAT SINK COVER	1	
		VWJ0424	FLEXIBLE CARD	1	P4004-P7501
		VWJ18AW160MM	FLEXIBLE CARD	1	P4005-P7502
		VJF0379	CLAMP	1	
		VGU3501	SWITCH KNOB	1	
		VEJ0961	REAR JACK	1	
		ENV87837H3A	TUNER UNIT	1	<!>
		VSC2713	SHIELD (MAIN)	1	FOR TV DEMODU.
		VSC2712	SHIELD (TOP)	1	FOR TV DEMODU.
		VSC2714	SHIELD (BOTTOM)	1	FOR TV DEMODU.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP05150B	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C502		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C503		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C504		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C505		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C506-08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C509		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C510		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C511		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C512		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C513		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C514		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C516,17		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C519		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C520		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C523		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C524,25		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C526		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C528		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C530		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C532		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C551		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C552		ECEA0JPK221	E.CAPACITOR 6.3V 220U	1	
C553		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C556-59		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C561		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C562,63		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	2	
C564,65		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C566		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C567		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C570		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C571		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C572		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
IC501		BA7274S	IC	1	
IC551		BA7743FS	IC	1	
L501		ELESP101KA	COIL	1	
L502		VLQ0188K330	COIL 33UH	1	
L551,52		ELESP101KA	COIL	2	
L553,54		VLQ0213K2R2	COIL 2.2UH	2	
P501		VJP1251T	CONNECTOR (MALE) 11P	1	
P502		VJS2603	CONNECTOR (FEMALE)	1	
P551		VJP1236T	CONNECTOR (MALE) 9P	1	
Q501		MSB709	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R501		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R502		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R503		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R504		ERJ6GMYJ204	M.RESISTOR CH 1/10W 200K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R505		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R506,07		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	2	
R508,09		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R511,12		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	2	
R513		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R514		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R517		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R518,19		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R520		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R523		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R524		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R551,52		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R554		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R555		ERJ6GMYG243	M.RESISTOR CH1/10W 24K	1	
R556		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R557		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R558		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R559		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R560		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R561,62		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R563		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R564		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R565		VRE0034E100	M.RESISTOR CH 1/10W 10	1	
R566,67		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R568		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R569		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R571,72		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	2	
VR501,02		EVND1AA00B23	V.RESISTOR 2K	2	
			MISCELLANEOUS		
		VSC2668	SHIELD (TOP)	1	
		VSC2669	SHIELD (BOTTOM)	1	
		VSC2670	SHIELD (MAIN)	1	
	■	VEP06617A	VR C.B.A.		
			CAPACITORS		
C6502		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C6503		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C6504		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C6507,08		ECQV1H124JS	P.CAPACITOR 50V 0.12U	2	
D6501		1SS254	DIODE	1	
D6503		1SS254	DIODE	1	
D6506		SEL1110S	DIODE	1	
D6507		1SS254	DIODE	1	
IC6501		VCR0172	IC	1	
J6301		VJJ0238	HEAD PHONE JACK	1	
J6302		VJJ0274	MIC JACK	1	
P6501		VJP1252T	CONNECTOR (MALE) 12P	1	
P6502		VJP1244T	CONNECTOR (MALE) 4P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P6503		VJP1243T	CONNECTOR (MALE) 3P	1	
P6504		VJP1244T	CONNECTOR (MALE) 4P	1	
QR6501		UN4213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6511		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
SW6501		VSS0313	SWITCH	1	
SW6502-04		VSS0236	SWITCH	3	
SW6506		VSS0280	SWITCH	1	
SW6507		EVQQS307K	SWITCH	1	
VR3004		EVUF3AE20B24	V.RESISTOR 20K	1	
VR6501		EVJY50E20C23	V.RESISTOR 2K	1	
			MISCELLANEOUS		
		KL04	LED SPACER	1	
		VJF0821	JACK HOLDER	1	
		VGU4537	SLIDE KNOB	5	(FILTER MPX,DETAIL,
					AUDIO SELECT,HIFI/
					NORMAL,AV-SORTIE)
	■	VEP07549A	NICAM DECODER C.B.A.		
			CAPACITORS		
C7301		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7302		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7303		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7304		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7305,06		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7307		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7308-10		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C7311		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7312,13		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	2	
C7314		ECQP1H681JZ	P.CAPACITOR 50V 680P	1	
C7315		ECEA1CPB100	E.CAPACITOR 16V 10U	1	
C7316		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7317		ECQP1H122JZ	P.CAPACITOR 50V 1200P	1	
C7318		VCEA0JAC221J	E.CAPACITOR 6.3V 220U	1	
C7319		ECQP1H122JZ	P.CAPACITOR 50V 1200P	1	
C7320		VCEA0JAC101J	E.CAPACITOR 6.3V 100U	1	
C7321		VCEA0JAC470	E.CAPACITOR 6.3V 47U	1	
C7322		ECQP1H681JZ	P.CAPACITOR 50V 680P	1	
C7323		ECEA1CPB100	E.CAPACITOR 16V 10U	1	
C7324		VCEA1CAC470	E.CAPACITOR 16V 47U	1	
C7325,26		ECEA1CPB100	E.CAPACITOR 16V 10U	2	
C7327,28		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7329,30		VCEA1CAC470	E.CAPACITOR 16V 47U	2	
C7331		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7332,33		ECEA1CPK100	E.CAPACITOR 16V 10U	2	
C7334,35		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	2	
C7336		ECEA1CPK100	E.CAPACITOR 16V 10U	1	
C7337,38		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7339		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7342		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7343		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7344		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C7345		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7348		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7349		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7350,51		VCEA1CAC100	E.CAPACITOR 16V 10U	2	
C7901,02		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7903		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C7904		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7905		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7906,07		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7908,09		ECEA1HKR47	E.CAPACITOR 50V 0.47U	2	
C7910,11		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7912		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C7913		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7914		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7915		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7916		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C7917,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7919,20		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7921,22		ECUM1H221JN	C.CAPACITOR CH 50V 220P	2	
C7923-25		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	3	
C7926		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C7927		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7928		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C7929		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7930		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C7931		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7932,33		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7940,41		ECRHA020D41	TRIMMER	2	
D7301		MA151WK	DIODE	1	
D7302		MA151A	DIODE	1	
D7303		MA151WA	DIODE	1	
D7304		MA28W	DIODE	1	
D7305		MA151WK	DIODE	1	
D7306		MA151WA	DIODE	1	
D7307		MA151A	DIODE	1	
D7901		MA3110L	DIODE	1	
FL7301-04		VLF0634	FILTER	4	
FL7309-11		VLF0632	FILTER	3	
FL7313		VLF0632	FILTER	1	
FL7314		VLF0634	FILTER	1	
FL7315,16		VLF0701	FILTER	2	
FL7901,02		VLF0634	FILTER	2	
IC7301		TC6011N	IC	1	
IC7302		TC5563APL	IC	1	
IC7303		TD6710AN	IC	1	
IC7304		AN6572	IC	1	
IC7305,06		M5201L	IC	2	
IC7901		TA8662N	IC	1	
L7301,02		VLP0054	COIL	2	
L7303-05		VLQEL05F4R7K	COIL 4.7UH	3	
L7901,02		ELESP821KA	COIL 820H	2	
P7301		VJP1393T	CONNECTOR (MALE) 13P	1	
Q7301		2SC1317	TRANSISTOR	1	(Q,R,S,T)
Q7302		2SB709	TRANSISTOR CHIP	1	
Q7303,04		2SD1328	TRANSISTOR	2	(S)
Q7305		2SB709	TRANSISTOR CHIP	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q7307		2SB709	TRANSISTOR CHIP	1	
Q7901		2SC1317	TRANSISTOR	1	(Q,R,S,T)
QR7301		UN2211	TRANSISTOR-RESISTOR	1	
QR7302		UN2212	TRANSISTOR-RESISTOR	1	
QR7303		UN2112	TRANSISTOR-RESISTOR	1	
QR7304		UN2113	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7301-06		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	6	
R7307		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R7308,09		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R7310		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R7311,12		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	2	
R7313,14		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R7315		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7316		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R7317		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7318		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7319		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7320		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R7321		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7322		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7323,24		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7325,26		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R7327		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7328,29		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R7330		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7331,32		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	2	
R7333,34		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R7335		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R7336,37		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7338,39		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R7340		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7341		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R7350,51		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7352-54		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	3	
R7355		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R7901		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7902		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R7903		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R7904		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R7905		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7906,07		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R7908		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R7909		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
VR7301,02		EVN38CA00B53	V.RESISTOR 5K	2	
X7301		VSX0294	CRYSTAL OSC.	1	
X7901		VSX0292	CRYSTAL OSC.	1	
X7902		VSX0291	CRYSTAL OSC.	1	
			MISCELLANEOUS		
		VSC2731	TOP SHIELD	1	
		VSC2732	MAIN SHIELD	1	
		VSC2733	BOTTOM SHIELD	1	
	■	VEP07581D	TIMER C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C6701		ECEA0JK470I	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H471KBA	C.CAPACITOR 50V 390P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3I	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMMER 3P	1	
C7502		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C7503		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7504		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7514		ECUM1H101JN	C.CAPACITOR CH 50V 100U	1	
C7520		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7521		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7522		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C7523,24		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C7525		ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C7528		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7540-45		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	6	
C7546-49		ECCF1H270JC	C.CAPACITOR 50V 27P	4	
C7584		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA3075	DIODE	1	
D7502		MA73	DIODE	1	
D7507,08		MA73	DIODE	2	
D7510,11		MA73	DIODE	2	
D7513		MA73	DIODE	1	
D7516,17		MA73	DIODE	2	
D7530		MA73	DIODE	1	
D7532,33		MA73	DIODE	2	
D7538-41		MA73	DIODE	4	
D7550,51		LN28RCPL	DIODE	2	
D7553		LN38GCPL	DIODE	1	
D7556		LN28RCPL	DIODE	1	
D7560		MA73	DIODE	1	
DP7501		VSL0183	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VFY	IC	1	
IC7502		MN12C261D	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	(S)
IC7505		BA6810S	IC	1	
L7501		ELESP221KA	COIL 220UH	1	
P7501		VJS1690	CONNECTOR	1	
P7502		VJS1688	CONNECTOR	1	
P7503		VJP2887	CONNECTOR	1	
P7504		VJP1243T	CONNECTOR (MALE) 3P	1	
QR7501		MRN1404	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR7503		MRN2404	TRANSISTOR-RESISTOR	1	
QR7505		MRN2402	TRANSISTOR-RESISTOR	1	
QR7510-12		MRN2403	TRANSISTOR-RESISTOR	3	
QR7513		MRN1404	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ124	C.RESISTOR 1/4W 120K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R7501		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R7502		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7503		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7504		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7506		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R7507		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R7508-10		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7512		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7523-28		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	6	
R7530-32		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	3	
R7533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7536		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7538		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7539		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7540		ERJ6GMYG223	M.RESISTOR CH 1/10W 22K	1	
R7541		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7542-44		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	3	
R7547		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7550,51		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R7556		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R7557		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7558,59		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R7560		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7562,63		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R7564		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R7581		ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7582		ERJ6GMYG561	M.RESISTOR CH 1/10W 560	1	
R7583		ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7584		ERJ6GMYG561	M.RESISTOR CH 1/10W 560	1	
R7585		ERJ6GMYG272	M.RESISTOR CH 1/10W 2.7K	1	
RX7501		EXBF6E104J	COMBINATION R & R	1	
RX7502		EXBF8E104J	COMBINATION R & R	1	
RX7503		EXBF6E104J	COMBINATION R & R	1	
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	
VR7581		EWANYGX05J54	V.RESISTOR 50K	1	
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1478	LED SPACER	1	
		VJF0790	FIP HOLDER	1	
		VSC2987	SHIELD (MAIN)	1	FOR IR RECEIVER
		VSC2988	SHIELD (BOTTOM)	1	FOR IR RECEIVER
	■	VEP01420A	POWER C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C1101		ECQU2A224MN	P.CAPACITOR 100V 0.22U	1	
C1102		ECQU2A154MNB	P.CAPACITOR 100V 0.15U	1	
C1108		ECOS2GU820B	C.CAPACITOR 400V 82P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473JZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1112		ECQB1H682JZ	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H334JF	P.CAPACITOR 50V 0.33U	1	
C1114		ECA1CXLV470	E.CAPACITOR 6.3V 68U	1	
C1115		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C1117		ECQP1101JZ	P.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DPS681X	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ681X	E.CAPACITOR 10V 680U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZFB	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZFB	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	
C1142		VCC0021	CAPACITOR	1	
C1145		VCC0021	CAPACITOR	1	
C1147		VCC0022	C.CAPACITOR 1000P	1	
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D1102		S1WBA60	DIODE	1	
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	
D1107		1SS254	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		30DF2FC6	DIODE	1	
D1110		10ELS2	DIODE	1	
D1111		31DQ04FC6	DIODE	1	
D1112		ERB83-004L17	DIODE	1	
D1113		MA2160B	DIODE	1	
D1114		MA4130L	DIODE	1	
IC1101		STRD6008X	IC	1	
IC1102		STK5391	IC	1	
IC1103		SE013E	IC	1	
L1101		ELF18D221F	COIL	1	
L1102		ELF18D290A	FILTER	1	
L1103		VLQ0410	COIL	1	
L1104-07		VLP0085	FILTER	4	
L1110		VLP0085	FILTER	1	
P1101		VJP1929T	CONNECTOR (MALE)	1	
P1102		VJS2625	CONNECTOR (FEMALE)	1	
Q1101		PC111AD	TRANSISTOR	1	
Q1102		2SD1996	TRANSISTOR	1	
Q1104		2SD1273	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R1101		ERC12AGM334	S.RESISTOR 1/2W 330K	1	
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1108		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R1109		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R1110		ERG2SJ330	M.RESISTOR 2W 33	1	
R1111		ERG3SJ270	M.RESISTOR 3W 27	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	W.RESISTOR 1/2W 2.2	1	
R1129		ERW1PKR39	W.RESISTOR 1/2W 39	1	
R1130		ERDS2T0	C.RESISTOR 1/4W 0	1	
T1101		VLT0608	TRANSFORMER	1	
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	
		VMZ1183	CAPACITOR COVER	1	
	■	VEP00K88C	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333C	CAPACITOR-RESISTOR	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR 2P	1	
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VEP00M86A	FG AMP C.B.A.		(NLA)
			CAPACITORS		
C1510		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C1511		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C1512		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C1513		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C1514		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC1501		AN1358S	IC	1	
L1510,11		VLP0083	FILTER	2	
P1505		VJS1456	CONNECTOR(FEMALE)	1	
P1506		VJS1685	CONNECTOR (FEMALE)	1	
			RESISTORS		
R1510		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1511		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R1512		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R1513-16		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	4	
R1517		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R1518		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1519		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
	■	VEX0113	CYLINDER DRIVE C.B.A.		(NLA)
C2904		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C2905		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C2906		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C2907		ECUM1E683KBM	C.CAPACITOR CH 25V 0.068U	1	
IC2901		AN3815K	IC	1	
P2901		VJP2603W	CONNECTOR(MALE) 12P	1	
P2902		VJP1232T	CONNECTOR(MALE) 5P	1	
R2901		ERX12SJR47V	M.RESISTOR 0.47	1	
			MISCELLANEOUS		
		VMA8089	MAIN HOLDER	1	
	■	VXA3825	MECHANISM CONNECTION C.B.A.		(NLA)
IC1501,02		ON2170	PHOTO COUPLER	2	
P1504		VJS1493	CONNECTOR 15P	1	
	■	VEK3578	PHOTO Tr.(S) C.B.A.		(NLA)
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VMD0645	PHOTO TRANSISTOR HOLDER	1	
	■	- - - - -	PHOTO Tr.(T) C.B.A.		(NLA)
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1502		PN150NV	PHOTO TRANSISTOR	1	
R1503		ERDS2TJ222	C.RESISTOR 1/2W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TRANSISTOR HOLDER	1	
	■	VEP66125A	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C6801		ECEA1AKA470I	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C6803		ECEV1CAN4R7R	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6808,09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6810		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C6811		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C6812		ECUM1E154ZFM	C.CAPACITOR CH 25V 0.15U	1	
D6801		SE303ACYTF	DIODE	1	
D6803-12		MA221	DIODE	10	
D6817		MA221	DIODE	1	
IC6801		MN158455VSSD	IC	1	
IC6802		AN8356S	IC	1	
L6801		ELT3K017B	COIL	1	
Q6801		2SD1328	TRANSISTOR CHIP	1	(R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6803		DTC144TK	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6802,03		ERJ6GMYJ474	M.RESISTOR CH 1/10W 470K	2	
R6804		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R6805		ERJ6GMYJ153V	M.RESISTOR CH 1/10W 15K	1	
R6806		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6807		ERJ8GCYJ1R2	M.RESISTOR CH 1/8W 1.2	1	
R6808		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6810		ERJ6GMYJ184	M.RESISTOR CH 1/10W 180K	1	
R6812		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6813		ERJ6GMYJ6R8	M.RESISTOR CH 1/10W 6.8	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6814,15		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R6816		ERJ6GMYJ334V	M.RESISTOR CH 1/10W 330K	1	
R6817		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA00B34	V.RESISTOR 30K	1	
X6801		EFOGC3524T4	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D401K	CRYSTAL OSCILLATOR	1	